

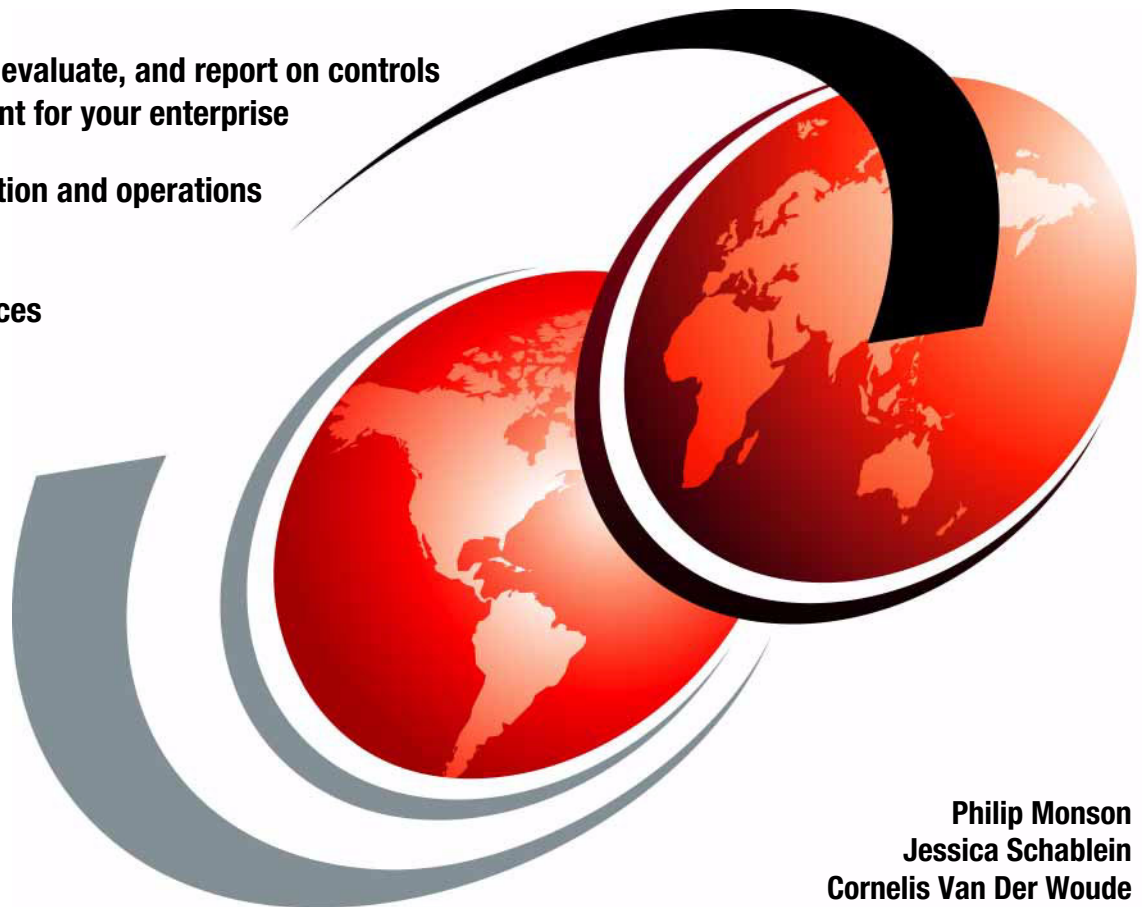


# IBM Workplace for Business Controls and Reporting: Administration and Operations Best Practices

Document, evaluate, and report on controls  
management for your enterprise

Administration and operations

Best practices



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International Technical Support Organization

**IBM Workplace for Business Controls and  
Reporting: Administration and Operations Best  
Practices**

October 2005

**Note:** Before using this information and the product it supports, read the information in “Notices” on page vii.

**First Edition (October 2005)**

This edition applies to Version 2.5 of IBM Workplace for Business Controls and Reporting.

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# Preface

IBM® Workplace™ for Business Controls and Reporting provides the knowledge and information management, as well as the portal and collaboration infrastructure, to help address internal business controls and reporting requirements. This IBM offering provides document management, collaboration, audit trails, and archiving functions in an integrated offering. The content repository technology forms the foundation for organizing control activities, disseminating information, and gathering the information required to help evaluate risk and monitor internal control systems.

Whether you are a line-of-business executive, financial controls manager, auditor, or application administrator, this IBM Redpaper will introduce you to Workplace for Business Controls and Reporting and its administrative and operational features and best practices. This paper is intended for use after you initially install the product.

## The team that wrote this Redpaper

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# Introduction to IBM Workplace for Business Controls and Reporting

This chapter provides an overview and positioning of the IBM Workplace for Business Controls and Reporting system. In this chapter, we discuss the following topics:

- ▶ The IBM response to the compliance challenge
- ▶ What IBM Workplace for Business Controls and Reporting is
- ▶ Overview of control frameworks, COSO, COBIT
- ▶ Summary

## 1.1 Disclaimer

Customers are responsible for ensuring their own compliance with the Sarbanes-Oxley (SOX) Act. It is the customer's sole responsibility to obtain the advice of competent legal counsel as to the identification and interpretation of any relevant laws, including but not limited to, the Sarbanes-Oxley Act, that may affect the customer's business and any actions the customer may need to take to comply with such laws. IBM does not provide legal, audit, or accounting advice or represent or warrant that its services or products will ensure that the customer is in compliance with any law.

## 1.2 Responding to the compliance challenge

Many companies face internal controls-management challenges, such as compliance and risk management. An end-to-end solution, IBM Workplace for Business Controls and Reporting Version 2.5 provides an open controls-management platform that enables you to address your challenges in managing internal business controls. The open, standards-based platform of Workplace for Business Controls and Reporting supports documentation and reporting of internal controls based on the Integrated Internal Control Framework from Committee of Sponsoring Organizations (COSO) of the Treadway Commission and the Control Objectives for Information Technology, COBIT, internal control framework from the IT Governance Institute, as well as other internal control frameworks from international organizations, reducing complexity by using a single tool to meet multiple requirements.

By integrating capabilities for knowledge- and information-management and leveraging a collaborative portal infrastructure, IBM Workplace for Business Controls and Reporting can help you in your efforts to effectively manage internal business controls and reporting requirements:

- ▶ Provides an integrated controls management platform to easily document, evaluate, and report on the effectiveness of business controls.
- ▶ Documents processes in a consistent manner to support the identification of risks and controls that facilitates the evaluation of control effectiveness.
- ▶ Delivers a role-based, collaborative approach with executive dashboards, providing the ability to actively monitor the enterprise-wide control environment on a continuous real-time basis.
- ▶ Offers enhanced organizational efficiency with support for multiple control types, shared controls, organizational movement, versioning, import, and e-mail alert capabilities.



- ▶ Enables you to get started quickly with the import of company-specific, third-party control catalogs or procedures directly from Microsoft® Excel®.
- ▶ Leverages multiple, integrated collaborative capabilities to improve exception resolution, leverage existing skills, and help lower the total cost of compliance (TCC).

In fact, a recent IBM survey reports that, “The majority of surveyed CFOs view the [Sarbanes-Oxley] compliance requirements as an opportunity to streamline systems and improve real-time business-process efficiency, even beyond the scope of any specific regulatory compliance.”

To take advantage of this chance to improve internal processes while responding to Section 404 of the Sarbanes-Oxley Act, it is important for public companies to be able to:

- ▶ Assess and report on the effectiveness of internal controls and processes in a timely manner
- ▶ Implement new, and adjust existing, controls and processes
- ▶ Manage massive volumes of critical business content that might be required to support your compliance initiatives
- ▶ Simplify internal control processes by infusing control-related activities into employees’ daily routines
- ▶ Continue using existing investments to help control costs

To read more about this topic, refer to “Leverage on demand solutions to help you create strategic Sarbanes-Oxley compliance plans,” available at:

[ftp://ftp.software.ibm.com/software/lotus/pub/lotusweb/sox/10703070\\_Lotus\\_final.pdf](ftp://ftp.software.ibm.com/software/lotus/pub/lotusweb/sox/10703070_Lotus_final.pdf)

## 1.2.1 Supporting the entire controls-management process

IBM Workplace for Business Controls and Reporting can be an important part of your overall business-controls-management process. It provides you the ability to effectively document, evaluate, and report on internal controls while producing an audit trail, which enables you to track key changes. The capability for shared controls helps reduce testing efforts by enabling users to share evaluation results across business units and processes. The solution provides certification capability at the business unit and process levels, providing accountability for business unit and process owners, giving them the ability to certify that business units and processes are meeting company standards and to provide certification comments following the review of controls.

## **1.2.2 Taking a collaborative, role-based approach to controls reporting**

IBM Workplace for Business Controls and Reporting creates a role-based work environment that enables users to view information specific to their roles within the controls-management process. In addition, they can manage and share control documents, such as organizational charts, policies, and standard operating procedures, in a highly secure environment. Collaboration capabilities can help teams resolve issues and share information quickly with real-time communication through instant messaging, online discussions and meetings, and automatic e-mail alerts.

All content related to your processes and business controls, as well as documents defining your policies and procedures or compliance processes, can be stored in the solution's controls database. This database can be accessed through the IBM Workplace portal by internal staff, auditors, external legal counsel, and others, as required and defined by your company. The solution also includes multiple standard reports with the ability to create custom reports so that your company can easily assess the effectiveness of its control activities, and then determine what modifications are necessary. Flexible reporting is provided with integrated support from leading third-party vendors; examples include Actuate, MicroStrategy, Business Objects, Cognos, and Hyperion.

## **1.2.3 Enhancing efficiency with support for multiple control types, shared controls, e-mail alert capabilities, and more**

IBM Workplace for Business Controls and Reporting can help enhance efficiency by providing:

- ▶ Support for a broad range of internal controls: Role-based access to key financial and non-financial controls enables users to quickly assess processes. Financial processes can be linked to key financial statement accounts to help with understanding the effect of a particular control on financial statement accuracy.
- ▶ Global, shared controls: Controls that support multiple risks, even if not in the same business unit or process, can be tested once and then shared by other risks. The sharing of controls helps reduce the cost of testing by allowing a control to be tested once and applied broadly.
- ▶ Versioning and trending: Versioning support enables the organization to create a version of its data at defined intervals. These versions remain online and can be used to gauge progress and trends.
- ▶ E-mail notifications: Notifications through e-mail provide an efficient method of tracking significant changes and alerting users to expected actions.

- ▶ Automated organization movement: Organization movement enables anyone with the appropriate access rights to move an organizational unit and all related process and control documentation.
- ▶ Process and control catalog import: Process and controls information that is stored either in spreadsheets or expressed as XML can be imported directly using a utility that ships with IBM Workplace for Business Controls and Reporting, thereby reducing the time to set up processes and controls.
- ▶ Edit and rename user interface items: Label Manager, an administrative component of the solution, enables buttons, labels, and drop-down lists to be edited or renamed to match specific corporate language and terminology when required.
- ▶ Extended value for your IT environment: Built on open Java™ 2 Platform, Enterprise Edition (J2EE™) standards, IBM Workplace for Business Controls and Reporting enables you to implement a modular solution, helping extend the value of your current IT infrastructure.

## **1.2.4 IBM Workplace for Business Controls and Reporting overview and highlights**

IBM Workplace for Business Controls and Reporting provides the knowledge and information management, as well as the portal and collaboration infrastructure, to help address internal business controls and reporting requirements. This IBM offering provides document management, collaboration, audit trails, and archiving functions in an integrated offering. The content repository technology forms the foundation for organizing control activities, disseminating information, and gathering the information required to help evaluate risk and monitor internal control systems.

Highlights include:

- ▶ Provides a platform for an organization's business reporting process and an organized approach to gathering information about business controls, including controls over financial reporting.
- ▶ Assigns ownership over business processes, organizational units, and even individual controls.
- ▶ Enables management to actively monitor the internal controls environment on a continuous real-time basis with executive dashboards, helping to provide visibility into the effectiveness of a company's internal business controls.
- ▶ Helps leverage industry insights and knowledge of internal control processes and practices using third-party control catalogs, available directly from vendors at a separate charge.

- ▶ Allows you to document the company's control environment, helping to support the identification of risks and controls, and to facilitate the evaluation of the controls' effectiveness.
- ▶ Integrates multiple capabilities into a single platform to leverage existing skills within your organization and to help drive lower total cost of ownership (TCO).
- ▶ Provides single-password access to content and services.
- ▶ Archives each quarter's or year's data with enhanced archiving capabilities.
- ▶ Uses role-based workplaces, which provide the repository for controlling and sharing control documents, such as organizational charts, policies, and standard operating procedures. The process flow capabilities enable processes to be standardized, automated, and verified.

All content related to internal controls, documents defining policies, and procedure or compliance processes can be stored in the tool, which can be accessed by internal staff, auditors, the board, external legal counsel, and others as required. Reports can also be generated regarding material events so that the effectiveness of controls activities can be easily assessed.

## 1.2.5 What is IBM Workplace for Business Controls and Reporting?

IBM Workplace for Business Controls and Reporting helps provide a common platform for companies to easily document, evaluate and report the status of controls management across multiple initiatives in your enterprise.

IBM Workplace for Business Controls and Reporting simplifies risk assessment and control management by addressing a wide range of business control-related challenges. The solution provides an open control environment that is fully compatible with the Integrated Control Framework from COSO, the COBIT internal control framework from the IT Governance Institute, and other internal control frameworks from international organizations such as the International Standards Organization (ISO) and Information Technology Infrastructure Library (ITIL). This solution marks a dramatic step forward to help companies move from compliance with Sarbanes-Oxley to general controls management. Additionally, by using the collaboration capabilities, companies can develop solutions to not only manage internal controls but also support financial reporting accuracy and real-time disclosures.

It is a tool to help you document, evaluate, and report the status of your internal controls. IBM Workplace for Business Controls and Reporting supports both financial and non-financial controls and for internal controls for financial reporting (SOX controls). It also enables you to identify other reporting attributes that can be useful during your SOX audit. These include the COSO component, control type, and financial statement assertion.

IBM Workplace for Business Controls and Reporting can be used to support:

- ▶ Your quarterly SOX filings under section 302.
- ▶ Your annual SOX filings under section 404.
- ▶ In addition, IBM Workplace for Business Controls and Reporting can be used to support your overall control management process for other COSO control categories, such as operational and compliance controls.
- ▶ COBIT controls can also be recorded; however, the reporting for them will be COSO-centric.

IBM Workplace for Business Controls and Reporting is a standards-based framework that is intended to help companies address a wide range of business control-related problems.

Workplace for Business Controls and Reporting Version 2.5 and future versions will support an open control environment that is fully compatible with the Integrated Control Framework from COSO, the COBIT internal control framework from the IT Governance Institute, and other internal control frameworks from international organizations such as the International Standards Organization (ISO) and Information Technology Infrastructure Library (ITIL). With this structure, companies can now document, test, and report all of their internal controls in a single application.

As mentioned earlier, IBM Workplace for Business Controls and Reporting supports both financial and non-financial controls and any control framework that is based on the basic control data structure (process-objective-risk-control); however, regardless of which framework is used at this point in time, the reporting will be COSO-centric.

## 1.3 Control framework support

IBM Workplace for Business Controls and Reporting is based on a risk-based hierarchical process structure from the Committee of Sponsoring Organizations (COSO) of the Treadway Commission Internal Control - Integrated Framework. This framework is based on a process → subprocess → objectives → risks → control hierarchy of processes to control. Using a risk-based approach provides great flexibility and allows IBM Workplace for Business Controls and Reporting to support other risk-based framework such as COBIT and International Standards Organization ISO-17799 control standards for security.

In addition to supporting the process hierarchy contained in COSO's Integrated Internal Control Framework, IBM Workplace for Business Controls and Reporting also supports COSO-based control management through support for control

components and financial statement assertions. Both of these items are data attributes that can be associated with a control object. COSO uses an Internal Control Framework cube made up of five components.

COSO defines each of the five components as follows:

1. Monitoring: Provides an assessment of control status at a point and over time.
2. Information and communication: Provides appropriate access to and flow of information.
3. Control activities: Establish appropriate policies and procedures that ensure objectives are met.
4. Risk assessment: Identification and analysis of risks that might hinder the achievement of objectives.
5. Control environment: Includes people, organization structure, culture, governance structure, ethical standards, business processes, and so on. Sets the tone that influences control consciousness.

For more detailed information about COSO and the COSO Internal Control - Internal Framework, see the COSO Web site at:

<http://www.coso.org>

COBIT is a governance framework for managing the information technology functions, resources, and activities. It contains guidance for topics beyond control management, such as key performance indicators and other performance management areas. IBM Workplace for Business Controls and Reporting addresses the control management aspects of COBIT, and IBM Workplace for Business Execution addresses the performance management-related aspects.

To help companies understand how COBIT control structures can be used to support Sarbanes-Oxley compliance efforts, the Information Systems Audit and Control Association (ISACA) published *IT Controls for Sarbanes Oxley*. In this publication, ISACA provided the modification of the COSO cube that we discussed previously.

For further information about ISACA, COBIT, and *IT Controls for Sarbanes Oxley*, visit the ISACA Web site at:

<http://www.isaca.org>

## 1.4 Summary

IBM Workplace Business Controls and Reporting provides:

- Support for decision making and disclosure

- ▶ Role-based access to key financial indicators that enable you to quickly assess your processes
- ▶ Information for an on demand environment
 

You can respond rapidly to changing needs, helping to create a high-performance workforce. Also, the solution provides effective management for collaborative creation, storage, access, and distribution of content. Robust document management can help with audit trails, access control, and security.
- ▶ Information to help improve productivity
 

By helping to provide the right information at the right time, such as information about standard operating procedures, you can help to drive improved business productivity across your organization. Presence awareness and online chat can help improve communication and help resolve issues quickly through real-time collaboration.
- ▶ Extended value for your IT environment
 

Built on open Java 2 Platform, Enterprise Edition (J2EE) standards, IBM Workplace for Business Controls and Reporting enables you to implement a modular solution, helping extend the value of your current IT infrastructure. Built on industry leading IBM WebSphere Portal and IBM DB2® Content Manager software, IBM Workplace for Business Controls and Reporting allows infrastructure flexibility while providing all of the benefits and continued support of one of the world's largest software vendors.
- ▶ Internal controls reporting: A closer look
 

The solution is designed to help you tailor your company's control assessment process to match its specific needs, and then to disperse requests to report on these points of control to your operational units. Individual reporting units describe how they comply (or do not comply) and provide documentation in support of those claims. With all units reporting, you can have a picture of the company's overall compliance effectiveness. This can reveal to senior management where further efforts might be needed or where the desired controls posture has been achieved—with supporting materials.

In the following chapters, we discuss the operation and functionality of the IBM Workplace for Business Controls and Reporting system, features for the IBM Workplace for Business Controls and Reporting application administrator, and some high-level planning and deployment methodologies. Whether you are a line of business executive, financial controls manager, auditor, or application administrator, this Redpaper will introduce you to Workplace for Business Controls and Reporting and its administrative and operational features.







# IBM Workplace for Business Controls and Reporting functional operations

This chapter describes the functional operations and use of the IBM Workplace for Business Controls and Reporting system. In this chapter, we discuss:

- ▶ Software methodology overview
- ▶ User access and profiles overview
- ▶ Navigation within the application
- ▶ Setting up an organization
- ▶ Creating financial statements
- ▶ Creating documentation and the process hierarchy
- ▶ Evaluating the test procedure and controls
- ▶ Certification functionality
- ▶ Reporting and monitoring

## 2.1 Software methodology overview

The general flow of work in IBM Workplace for Business Controls and Reporting follows four stages: scope, document, evaluate, and report. Although Figure 2-1 shows reporting as a linear step that occurs at the end, there is reporting in all of the stages of IBM Workplace for Business Controls and Reporting. We describe each of these stages in greater detail in the following sections.

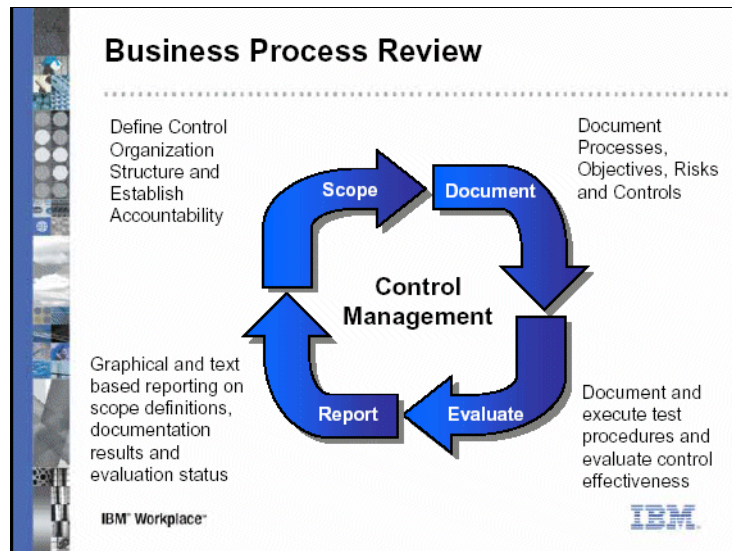


Figure 2-1 Business process review

There are three stages to process of Workplace Business Controls and Reporting, scoping, documentation, and evaluation, while the reporting can be seen as the result of those phases.

The scoping and documentation stages are usually done by relatively small groups of people in your organization.

The evaluation stage is usually done by a much larger constituency of end users. These users are the control and procedure owners who are responsible for evaluation of the control test procedures. Later, assessments can be made on controls to determine whether they are effective or not.

Finally, reporting and monitoring are a result of previous phases.

Figure 2-2 on page 13 shows a detailed flow chart of the software methodology. The next few sections discuss each of the stages in detail.

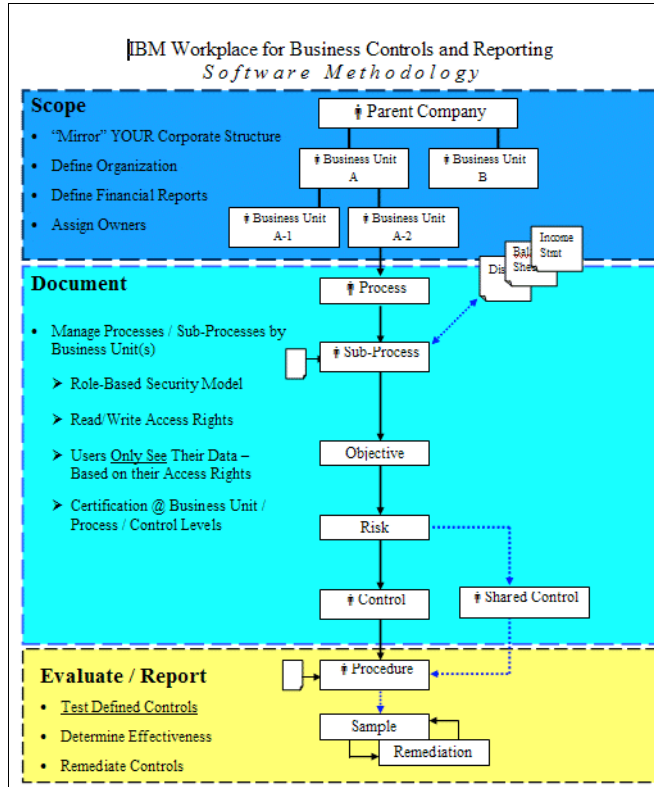


Figure 2-2 Software methodology tree

## 2.1.1 Scoping: Organization

There are three parts to the scoping phase within the application:

- Defining and setting up the organization units
- Identifying the significant accounts in your financial statements
- Loading the control catalog and the significant accounts through the catalog import

**Note:** We discuss this last item in 3.5.2, "Data import" on page 174.

If we look at the organization portion of the scoping phase, it is the part of the application where you define your organization's business unit hierarchy. We use the term *business unit* (BU) loosely, and depending on your organization's control structure, this can mean that you create the hierarchy by division, business unit, region, business function, product line, and so on.

There can be any level of depth or breadth in the organizational hierarchy. However, there is only one single top level unit that we refer to as the *parent company*. When you define the business units, you also assign or delegate ownership for each BU. This enables you to define ownership and authorities. Figure 2-3 illustrates business units.

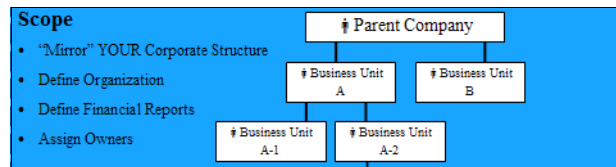


Figure 2-3 Business units: Scoping phase

## 2.1.2 Scoping: Financial statements

The three financial statements included in IBM Workplace for Business Controls and Reporting are also defined as part of the scoping phase:

- ▶ Balance sheet
- ▶ Income statement
- ▶ Disclosures

Prior to the determination of the effectiveness or ineffectiveness of controls, the financial statements help a company to scope the controls that should be the focus of its efforts by helping them to understand which of their controls support significant accounts in the financial statements.

The reason you want these defined up front is so that during the documentation phase, the subprocesses can be linked to the individual, significant line items on the financial statements. That way, if controls are found to be ineffective, you will know where and what level of impact that will have on the financial data. Keep in mind that up-to-the-minute financial data is not required for the financial statements, nor is this function meant to take the place of your existing financial systems.

**Note:** Version 2.5.1 contains support for federal financial statements. For more information, see "Template supports federal financial statements" on page 197.

## 2.1.3 Documentation

As a reminder, the process tree looks as follows:

Process → Subprocess → Objective → Risk → Control → Procedure

The process tree consists of the following components:

- ▶ *Processes* are defined and associated with a business unit.
  - As the software methodology indicates in Figure 2-4 on page 16, a process can also have its own ownership or delegated ownership that provides access control in the same way it does at the business unit level.
  - A process has one or more subprocesses.
- ▶ *Subprocess* are subunits of a process and can have one or more objectives, which is the desired status for that subprocess.
  - Subprocesses can be linked to any number of significant line items on the financial statements.
  - You can attach process documentation (any file type and any number of files can be associated with a subprocess as part of the documentation effort). See 2.6.3, “Attachments and URLs” on page 64 for more information.
- ▶ Each *objective* can be associated with one or more risks that stand in the way of achieving the objective.
- ▶ Each *risk* can be associated with one or more controls that mitigate or eliminate the risk.
- ▶ Each *control* can be associated with any number of test procedures.
  - Ownership can be defined or delegated again at this level.
  - You can also link to a single control that is shared across multiple processes or business units, or both.
- ▶ *Test procedures* outline the test steps that the control owners or procedure owner will follow before assessments are made as to whether the control is effective or ineffective.
  - Ownership can be defined or delegated again at this level.

**Note:** Notice at the subprocess and procedure level that you can attach or reference specific documentation within the tool. You can attach any file format (flowcharts, spreadsheets, Microsoft Word documents, and so on) that describe the processes or procedures. In Version 2.5.1, you can also attach documentation at the process level.

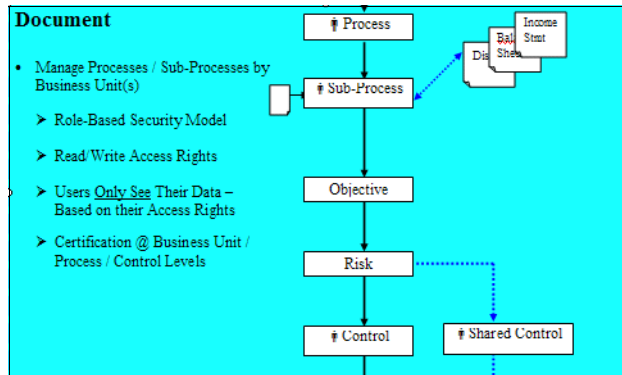


Figure 2-4 Documentation phase methodology

## 2.1.4 Evaluation

During the evaluation stage, procedures are executed to determine the effectiveness or ineffectiveness of the controls. Procedures can be based on a variety of audit techniques, including sampling, walk-throughs, interviews, and reviews. Failed samples can be remediated, and a history of sampling will be kept.

Documentation can be attached at the procedure level to record evidence of testing.

Lastly, though not visible in the tree diagram, you will give access to someone who has an overall process perspective to create a control observation record for the controls in the system. This enables the assigned person to specify any deficiencies, impact, and recommendations and indicate whether there are any mitigating controls to make up for any deficiencies for each individual control. You have the ability to create a control observation for controls that have been tested both ineffective or effective. See Figure 2-5.

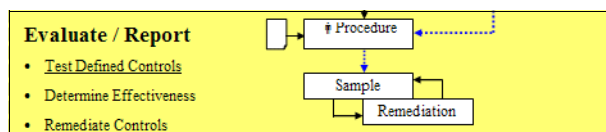


Figure 2-5 Evaluation/report methodology

## 2.1.5 User access control example

In Figure 2-2 on page 13, you will notice little people icons in some of the boxes throughout the methodology tree chart. These icons represent at which levels we assign ownership or delegate ownership.

In this example, if you are assigned as the owner of Business unit A-2, you would own this business unit and anything (down to the procedure level) that comes below it. By default, you can add, edit, and remove anything below and be able to read all information that is defined in a direct line leading to the top-level business unit. Therefore, you will see business unit A and the parent company, but you might not be aware that business unit A-1 or business unit B existed because you would never even see these in the system.

Similarly, a user can log in as a control owner and see where in the hierarchy it falls in a read-only line above it, but only see the hierarchy for the controls for which they have ownership or delegated ownership.

The granularity of access can be controlled further as described in 3.2, “IBM Workplace for Business Controls and Reporting access control” on page 125.

## 2.1.6 Reporting and monitoring

Reporting and monitoring occur throughout the entire process and not just at the end. There is reporting to support each of the three previously discussed steps. IBM Workplace for Business Controls and Reporting provides reports through both a graphical *Executive View* that supports drill down to textual reports and standard textual reports. We discuss this in much further detail in 2.9, “Reporting and monitoring” on page 103.

The overall objective of IBM Workplace for Business Controls and Reporting and the business process that we just discussed are to help establish a *sustainable business process*. To achieve sustainability, organizations and the applications that support them must be able to effectively deal with change. Change can come in the form of organizational, people, or process changes.

IBM Workplace for Business Controls and Reporting can support change through the following features:

- ▶ As organizational/business units move within your organization, IBM Workplace for Business Controls and Reporting can support those changes through the *organization move* capabilities.
- ▶ As people change jobs or roles, their access can be modified to reflect their new roles and new people can be assigned to their old role easily.

- ▶ As processes change, the documentation can be changed through the *dynamic update* feature.

## 2.2 User access and profiles overview

Now that you have a good idea of the software methodology, it is useful to talk about the various types of users that might be using IBM Workplace for Business Controls and Reporting. An in-depth look at creating and managing roles within the tool is in 3.2, “IBM Workplace for Business Controls and Reporting access control” on page 125.

There are five main categories of users within the application:

- ▶ Super users
- ▶ Business unit/process/subprocess owners
- ▶ Control owners
- ▶ Procedure owners
- ▶ Auditors

### 2.2.1 Super users

The first group of users to consider are the super users, or power users. These are individuals who will have the greatest knowledge about IBM Workplace for Business Controls and Reporting and will generally become internal training resources. Within your company, they will usually be a part of the compliance project office and will have global access to the application. These users are more than likely to have the responsibility for:

- ▶ Creating the organizational hierarchy and adding the business unit structure into the application
- ▶ Adding the financial reports to the system
- ▶ Importing control catalogs
- ▶ Administering the application functionality

### 2.2.2 Business unit, process, and subprocess owners

The next group of users are the business unit, process, and subprocess owners. They are generally the users who are responsible for:

- ▶ Allocating assignment of resources to document processes and controls and evaluating the testing and controls



- Certification, if business units and subprocess certification are used
- Determining the level of impact of ineffective controls

**Tip:** Users with this role should use the My Lists section of the application to access areas of responsibility. This will simplify the use of IBM Workplace for Business Controls and Reporting. See Figure 2-6 for an example. We discuss the user interface in greater detail in 2.3, “Navigation within the application” on page 20.

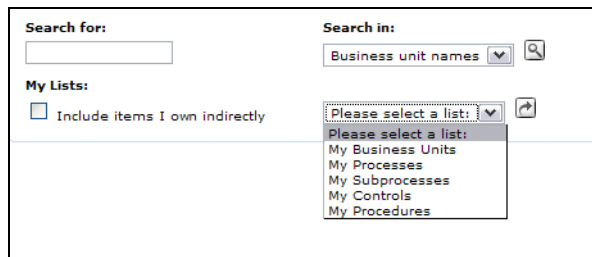


Figure 2-6 A look at My Lists

## 2.2.3 Control owners

Control owner resources are generally assigned by either the process or subprocess owner. They are responsible for:

- Documentation of controls and evaluation procedures
- Initial determination of individual control status based on evaluation results
- Certification status of controls based on company standards

These users are usually not responsible for impact ratings because they will normally not have a sufficient perspective to make that decision.

## 2.2.4 Procedure owners

Procedure owners are responsible for the execution of the testing instances (referred to as *procedures* and *samples* in IBM Workplace for Business Controls and Reporting). They record the results of the testing and record if it passed or failed. They are responsible for the remediation or gap plans from an IBM Workplace for Business Controls and Reporting perspective. However, they might not be directly involved in the execution of all or part of the plan. Internal

auditors who are responsible for evaluations can also be assigned to evaluation roles. These users are responsible for:

- ▶ Documentation of evaluation procedures and test plans
- ▶ Execution of evaluation procedures and conclusions regarding evaluation results
- ▶ Recording evaluation results in the tool
- ▶ Certifying the status of evaluations based on company standards

## 2.2.5 Auditors

When we refer to auditors in the context of IBM Workplace for Business Controls and Reporting, we are generally referring to internal auditors. For a variety of legal reasons, external auditors will generally record their work papers in a client's work paper environment. However, internal auditors can and often do have read-only access to the system.

Auditors review the results of evaluations and provide feedback on evaluations results and control effectiveness. They also have the ability to directly comment on each evaluation procedure.

## 2.3 Navigation within the application

**Important:** Throughout this chapter, we are describing the default settings for this application. Make note that some of the following behavior can be changed based on specific application settings available to administrators, as described in 3.3.1, "Global settings" on page 135.

IBM Workplace for Business Controls and Reporting is based on IBM WebSphere Portal technology, which provides the user interface to the application through *pages* and *portlets*. Pages provide us access to the various areas of focus of the application, and portlets provide windows into specific functionality within the tool.

When you log in to the application, you will notice the following pages or tabs (see Figure 2-7 on page 21):

- ▶ Home: An overview of the application.
- ▶ Executive View: The place to report on the status of your control framework.
- ▶ Documentation: The area where you will import or develop process documentation.

- ▶ Evaluation: The tab where evaluations of controls and test procedures take place.
- ▶ Organization: Where you create and maintain your organizational hierarchy.
- ▶ Reports: The place to view reports.
- ▶ Financial Reports: The area to create or view financial reports within the application.
- ▶ In Version 2.5.1, a new tab has been added for Settings: This is where you administer application settings.



Figure 2-7 Workplace for Business Controls and Reporting Interface: Home page and access to other tabs

**Tip:** If wanted, you can use WebSphere Portal (Portal for short) to customize IBM Workplace for Business Controls and Reporting:

- ▶ The theme can be branded to match your company's look and feel.
- ▶ For additional security, you can provide access control to each of the pages based on what type of user is accessing the application.  
For example, a control owner might not need access to the Organization tab.

Refer to the IBM WebSphere Portal Information Center for information about how to customize themes and how to apply security to pages, available at:

<http://publib.boulder.ibm.com/pvc/wp/500/ent/en/InfoCenter/index.html>

### 2.3.1 Orientation to the application

Each page has two portlets, *Navigator* and *Detail*, that provide access to the various objects maintained in the application. Each of these portlets is made up of two parts, giving us four quadrants. See Figure 2-8 on page 23.

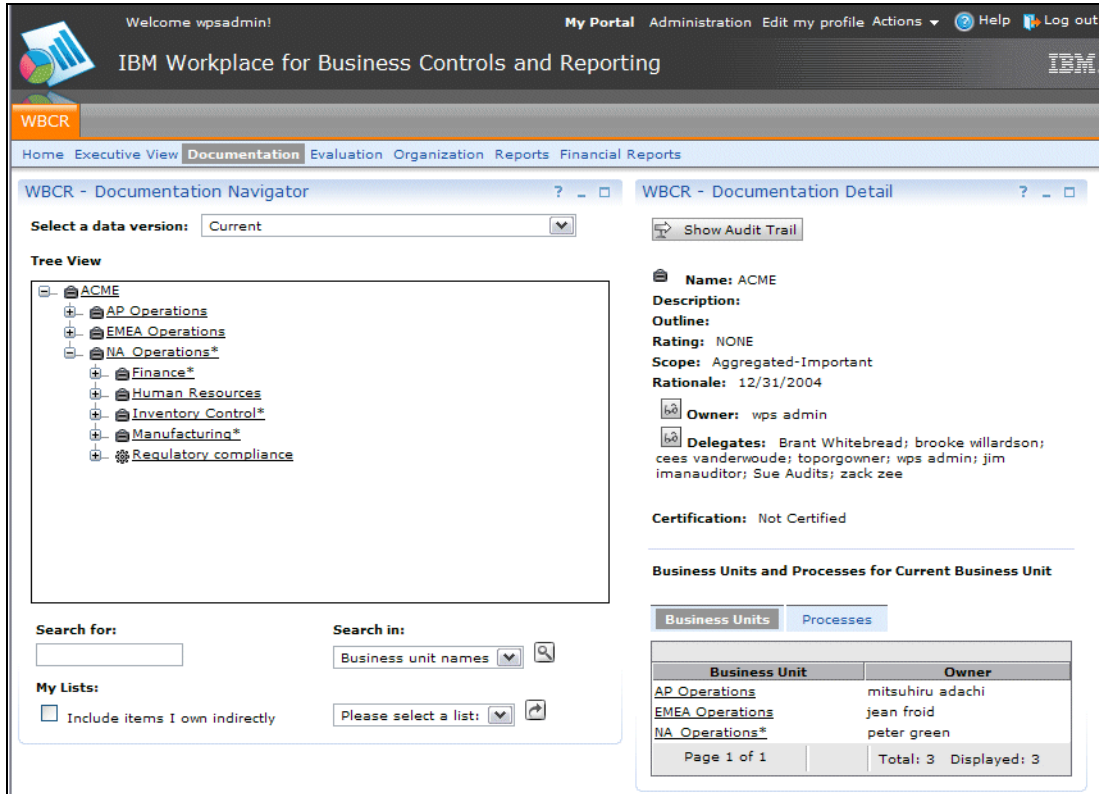


Figure 2-8 Navigation with portlets

As shown in Figure 2-8:

- ▶ The upper-left quadrant of the window is the primary navigation area and is often referred to as the *tree*. The tree contains the hierarchy for the organization and the process structure.
- ▶ The area in the lower-left quadrant is what we refer to as *My Lists*. This provides you with the ability to search for information or pull up relevant lists of objects that you own directly or indirectly, such as all the controls for which you are responsible. We discuss this in more detail in 2.3.2, “Navigation options (how to get around)” on page 25.
- ▶ The area in the upper-right quadrant shows all the details of the object that has been selected. You will also note that any actions that are available for a specific object are shown as buttons in this portlet.

- The area in the lower-right quadrant shows the next level details, the *children*, of the object that is selected in the main navigational window.

For example, if you are looking at a business unit, you will either see dependent business units or its processes below, or both. Or, if you are looking at an objective as the main object, you will see the risks listed in this area.

**Important:** On the tabs for Organization, Executive View, and Reports, the tree and details only show business units. When the Documentation or Evaluation tabs are selected, both the business unit and the process/control hierarchy are shown.

### **IBM Lotus Sametime integration (instant messaging)**

You have the option to install and implement Lotus Sametime® instant messaging functionality within the context of the IBM Workplace for Business Controls and Reporting application. With this functionality, you will be able to view whether a person is online and available to communicate in real-time through instant messages.

In Figure 2-9 on page 25, you can see that Jessica's name is in green with a green box in front of it. This means that she is online and available for conversation. If a user was logged in but away from their desk, the name would be yellow with a diamond, as in the case of Terrence. If someone was online but did not want to be disturbed, the name would be black with a do not disturb sign in front of it, as in the case of Philip.

If we wanted to communicate with any of these users, we simply click their name and initiate an instant message session, as shown in Figure 2-9 on page 25.

This concept of presence awareness is extremely valuable if you need an immediate answer or advice from a user who is working in the application.

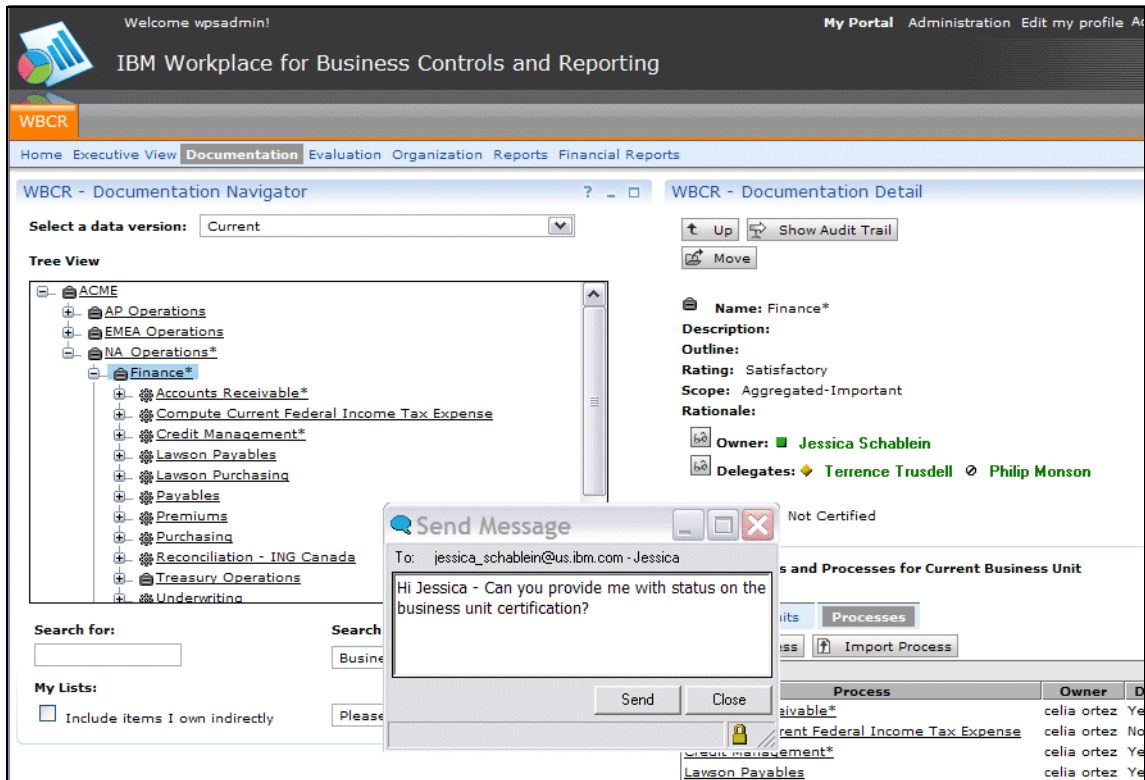


Figure 2-9 Sametime integration in IBM Workplace for Business Controls and Reporting

### 2.3.2 Navigation options (how to get around)

There are three common ways of navigating within IBM Workplace for Business Controls and Reporting: the Tree View, Search for, and My Lists areas.

#### Tree View

The tree is navigated by clicking the plus and minus (+/-) icons to expand or collapse the hierarchy for a particular object, as shown in Figure 2-10 on page 26. On the Documentation and Evaluation tabs, you can drill all the way down from the parent organizational unit to the test procedures for a particular control.

When you select the Executive View or Organization tab, the Tree View expands to only business units.

When you select the Documentation, Evaluation, or Reports tabs, the Tree View includes and expands to:

- ▶ Business units
- ▶ Processes
- ▶ Subprocesses
- ▶ Objectives
- ▶ Risks
- ▶ Controls
- ▶ Procedures

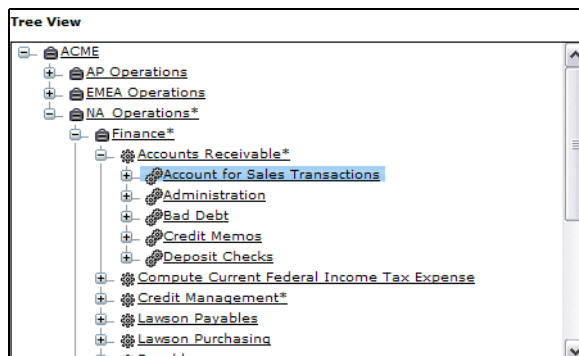


Figure 2-10 Tree View portlet for navigation expanded to a subprocess

## Search for

In the lower-left quadrant, as shown in Figure 2-11, you also have the ability to search for an object within the system.

Type a portion or complete name of an object in the Search for box and then select the scope of the search by selecting an area under the Search in drop-down list. Finally, click the magnifying glass icon to start the search. This will result in the application displaying a list of objects that match your search criteria from which you can select the object you want.

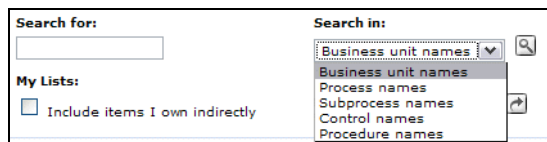


Figure 2-11 Search for navigation



**Important:** In Version 2.5 or earlier, this search is case dependent. Therefore, if you want to find EMEA Operations, you cannot use a lowercase “emea” to find it. This restriction has been removed in Version 2.5.1.

## My Lists

The *My Lists* component generates lists specific to a user that logs in to the system. This is a powerful way for users that have limited roles within IBM Workplace for Business Controls and Reporting to quickly get in and perform the tasks that are assigned to them. Available lists are dependent on the tab that is active.

When you select the tab for Organization, Executive View, or Reports, My Lists include My Business Units.

When you select the Documentation or Evaluation tabs, My Lists include:

- ▶ My Business Units
- ▶ My Processes
- ▶ My Subprocesses
- ▶ My Controls
- ▶ My Procedures

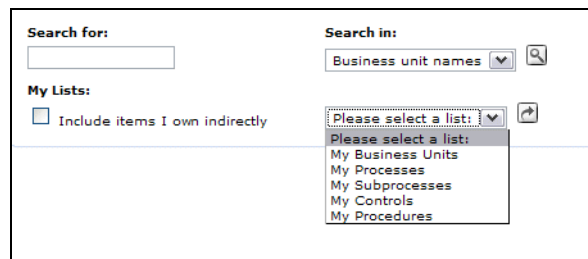
The screenshot shows the 'My Lists' component in a web application. It features a 'Search for:' text box and a 'Search in:' dropdown menu currently set to 'Business unit names'. Below the search area, there is a section titled 'My Lists:' with a checkbox labeled 'Include items I own indirectly'. To the right of this section is a dropdown menu with the placeholder text 'Please select a list:'. This menu is open, showing a list of options: 'My Business Units', 'My Processes', 'My Subprocesses', 'My Controls', and 'My Procedures'. A small arrow icon is visible to the right of the dropdown menu.

Figure 2-12 My List component

When a specific list is selected from the drop down list, and the user clicks the arrow icon, a list of the controls for which they have ownership appears.

**Example:** A control owner that has a number of controls assigned can get in and quickly generate a list of controls that he or she owns without having to navigate through the tree hierarchy one object at a time. See Figure 2-13 on page 28 for this example.

My Lists can be displayed for objects that are directly owned or indirectly owned by selecting the **Include items I own indirectly** option. Indirectly owned items include those objects for which the user has been defined as a delegate (rather than the owner) and those objects that the user implicitly owns because they have been granted explicit owner or delegate access at a higher level in the tree.

**Example:** If you are listed as a delegate for a business unit or process and you select the **Include items I own indirectly** option, it will also display those business units or processes in the results.

If you are the owner of a process and look for My Procedures while **Include items I own indirectly** is enabled, the list will contain all of the procedures for that process.

Welcome Jessica\_Schablein!My PortalEdit my profileActions▼HelpLog out

IBM Workplace for Business Controls and ReportingIBM

WBCR

HomeExecutive ViewDocumentationEvaluationOrganizationReportsFinancial Reports

WBCR - Documentation Navigator? \_ □

WBCR - Documentation Detail? \_ □

Select a data version:Current▼

Show Audit Trail

Tree View

ACME

Search for:

Search in:Business unit names▼

My Lists:

☐ Include items I own indirectly

My Controls▼

Control	Type	Owner
Authorize credit memos by individuals independent of accounts receivable function	Authorization	wps admin
(*) Involve users in review and approval to ensure systems are designed to meet user requirements	Reconciliation	Jessica Schablein

Page 1 of 1Total: 2Displayed: 2

Name: ACME

Description:

Outline:

Rating: NONE

Scope: Aggregated-Important

Rationale: 12/31/2004

Owner: wps admin

Delegates: Brant Whitebread; brooke willardson; cees vandervoude; toporgowner; wps admin; jim imanauditor; Sue Audits; zack zee

Certification: Not Certified

Business Units and Processes for Current Business Unit

Business UnitsProcesses

Business Unit	Owner
EMEA Operations	jean froid
NA Operations*	Peter Green

Page 1 of 1Total: 2Displayed: 2

Figure 2-13 My List results from selecting “My Controls” with an indirectly owned control in the list

The portlets and components on each page communicate with each other to display the appropriate, related objects. When an object is selected from the list of results, IBM Workplace for Business Controls and Reporting automatically:

- ▶ Expands the tree component to show where in the hierarchy you are currently working
- ▶ Sends the object to the details component in the upper-right quadrant
- ▶ Shows any child objects related to that object in the lower-right quadrant

See Figure 2-14 for the results of selecting the **Involve users in review** control from the My Controls list.

The screenshot displays the IBM Workplace for Business Controls and Reporting interface. The top navigation bar includes a welcome message for Jessica Schablein, a 'My Portal' section with links to 'Edit my profile', 'Actions', 'Help', and 'Log out', and the IBM logo. Below the navigation bar, a breadcrumb trail shows 'Home > Executive View > Documentation > Evaluation > Organization > Reports > Financial Reports'. The main content area is divided into two panes. The left pane, titled 'WBCR - Documentation Navigator', contains a 'Tree View' showing a hierarchy of controls. The right pane, titled 'WBCR - Documentation Detail', displays the details for the selected control: 'Involve users in review and approval to ensure systems are designed to meet user requirements'. The details include a description, shared status, rating, component, type, control execution, control execution frequency, owner, delegates, assertions, outline, and certification. Below the tree view, there is a search section with 'Search for:' and 'Search in:' fields, and a 'My Lists' section with a checkbox for 'Include items I own indirectly' and a dropdown for 'My Controls'. At the bottom, a table lists the controls, showing the selected control and its details.

Control	Type	Owner
Authorize credit memos by individuals independent of accounts receivable function	Authorization	wps admin
(*) Involve users in review and approval to ensure systems are designed to meet user requirements	Reconciliation	Jessica Schablein

Page 1 of 1      Total: 2    Displayed: 2

Figure 2-14 Results of selecting an object from My Controls

### 2.3.3 Audit trail overview and detail

In Figure 2-14 on page 29, you might have noticed a Show Audit Trail button. The Audit Trail button appears throughout IBM Workplace for Business Controls and Reporting for each of the objects in the system. The audit trail tracks details about any changes to an object so that you can easily track the following information:

- ▶ When did the change happen?
- ▶ Who made the change?
- ▶ What change was made?
- ▶ What were the values before and after the change?

Figure 2-15 on page 31 is an example of an audit trail for the EMEA IT business unit.

Item name					Friday, June
Lotus Workplace for Business Controls and Reporting Audit Trail : EMEA IT					
Date-time of Change	Person	Action	Field	Value before	Value after
Mar 7, 2005 2:20:30 PM	wps admin	Add an object	Name		EMEA IT
Mar 7, 2005 2:20:30 PM	wps admin	Add an object	Description		
Mar 7, 2005 2:20:30 PM	wps admin	Add an object	Rating		None
Mar 7, 2005 2:20:30 PM	wps admin	Add an object	Rationale		
Mar 7, 2005 2:20:30 PM	wps admin	Add an object	Outline		
Mar 7, 2005 2:20:30 PM	wps admin	Add an object	Scope		Aggregated-Important
Mar 7, 2005 2:20:31 PM	wps admin	Add a linkage			<a href="#">Show User Details</a>
Mar 8, 2005 11:21:53 PM	wps admin	Add a linkage			Manage Information Technology
Mar 9, 2005 12:27:26 AM	wps admin	Move Organization Tree	ParentID	EMEA Operations	AP Operations
Mar 9, 2005 12:34:24 AM	wps admin	Move Organization Tree	ParentID	AP Operations	EMEA Operations
Mar 9, 2005 12:36:51 AM	wps admin	Move Organization Tree	ParentID	EMEA Operations	EMEA Operations
Mar 11, 2005 10:56:45 AM	wps admin	Add a linkage			Process Accounts Receivable
Apr 5, 2005 4:22:53 PM	wps admin	Add a linkage	Add Certification		Certifier: wps admin, Last certified on: 4/5/ Certification comments: Certified
Jun 14, 2005 12:15:20 PM	wps admin	Move Organization Tree	ParentID	EMEA Operations	EMEA Operations
Jun 15, 2005 2:20:36 PM	wps admin	Add a linkage			<a href="#">Show User Details</a>
Jun 15, 2005 2:27:02 PM	Candy Dulfer	Add a linkage	Add Certification		Certifier: Candy Dulfer, Last certified on: 6/ Certification comments: Looks good
Jun 15, 2005 2:47:21 PM	wps admin	Add a linkage			<a href="#">Show User Details</a>
Jun 15, 2005 2:49:13 PM	wps admin	Add a linkage			<a href="#">Show User Details</a>
Jun 15, 2005 2:50:03 PM	wps admin	Add a linkage			<a href="#">Show User Details</a>
Jun 15, 2005 3:15:21 PM	wps admin	Add a linkage			<a href="#">Show User Details</a>
Jun 15, 2005 3:18:19 PM	wps admin	Add a linkage			<a href="#">Show User Details</a>
Jun 17, 2005 12:07:53 PM	wps admin	Add a linkage			<a href="#">Show User Details</a>
Jun 17, 2005 12:09:35 PM	Jessica Schablein	Change an object	Scope	Aggregated-Important	Significant Risk

Figure 2-15 Audit Trail for EMEA IT business unit

For this example, you can see that all the changes to this business unit have been tracked from the moment it was added to the system. We see items such as:

- March 7: The addition of the business unit to the system.

- ▶ March 9: The move of the business unit from AP Ops to EMEA Ops.
- ▶ April 5 and June 15: Certifications of the business unit took place.
- ▶ June 17: The scope for the business unit was changed.
- ▶ You will also notice that on several dates and times the Owner and Delegate fields were updated. We can tell this because the Show User Details button appears in the Value after column. Figure 2-16 is an example of this drill down report if we were to click the Show User Details button.

Item name					Friday, June 17, 2005
Lotus Workplace for Business Controls and Reporting Audit Trail : Owner Details					
Date-time of Change	Person	Action	Field	Value before	Value after
Mar 7, 2005 2:20:31 PM	wps admin	Add an object	Owner Assigned	Organization Owner	Jessica Schablein

Figure 2-16 Show User Details button in Audit Trail

The following items are available to track through the audit trail:

- ▶ Organizational unit
- ▶ Process
- ▶ Subprocess
- ▶ Objective
- ▶ Risk
- ▶ Control
- ▶ Procedure
- ▶ Financial statement
- ▶ Financial statement category
- ▶ Financial statement caption
- ▶ Financial statement subcaption
- ▶ Control execution
- ▶ Control observation
- ▶ Control evaluation
- ▶ Linkage between risk and objective
- ▶ Linkage between risk and control
- ▶ Linkage between subprocess and financial statement subcaption
- ▶ Attachment
- ▶ Certification

- ▶ ACL
- ▶ User
- ▶ Role
- ▶ Move organizational unit

**Note:** If objects are deleted, this is recorded in the audit trail of that object's parent.

## 2.4 Setting up an organization

Setting up the organizational structure and hierarchy is done in the Organization tab of the application and is a part of the scoping phase of the overall project.

Organizational units represent how controls and related documentation are organized and managed within IBM Workplace for Business Controls and Reporting. This structure can represent the actual corporate structure or can be optimized to better support control management.

It is important to note that reporting is driven from the organization structure. Another point to consider when developing the organization structure is how reporting will be managed.

**Example:** If you are including COBIT controls and want to see domain reporting, you can achieve this objective by setting up COBIT domains as an organizational unit.

Figure 2-17 on page 34 shows the fields that you need to complete when adding an organizational unit to the structure, and Table 2-1 on page 34 provides a description of each field.

WBCR - Organization Detail

Edit one or more of these fields, then click OK.

\* Name: ACME

Description: This is the parent, or top-most level within the company.

Outline: 1

\* Rating: None

\* Scope: Aggregated-Important

Rationale: Here is where you would input the rationale...

\* Owner: wps admin

\* Delegates: Brant Whitebread ; brooke willardson ; cees vanderwoude ; toporgowner ; wps admin ; jim imanauditor ; Sue Audits ; zack zee

\* Required

OK Cancel

Figure 2-17 Organizational unit fields

Table 2-1 Field values for an organizational unit

Field	Value	Description
Name*	Text	The name of the organizational unit.
Description	Text	A free form text field to document a description.
Outline	Text	A text field to enable you to apply an outline structure to your business units.
Rating*	<ul style="list-style-type: none"><li>None</li><li>Satisfactory</li><li>Marginally Satisfactory</li><li>Unsatisfactory</li></ul>	This field is where you can optionally apply a rating for the business unit.



Field	Value	Description
Scope*	<ul style="list-style-type: none"> <li>▶ Aggregated-Important</li> <li>▶ Aggregated-Not-Important</li> <li>▶ Individually Significant</li> <li>▶ Significant Risk</li> </ul>	Companies with multiple business units, geographic locations, or reporting units might need to determine which locations are relevant and should be included in their assessment. Management might consider which locations are financially significant in terms of the potential for a material misstatement. It is likely that a relatively small number of locations or business units encompass a large portion of the company's operations and financial position. Management also might consider whether there are locations that have specific significant risks or whether individual locations or business units that are not significant by themselves might be financially significant when aggregated with others.
Rationale	Text	This is where you can explain the rationale for choosing the pervious options.
Owner*	User name	A selection box that designates who has ownership of the organization unit and is considered legally accountable. Only one owner is allowed for each business unit.
Delegates	User or group names	A place to chose one or more users or groups who need delegated access to the organization. These users have the same default access as the owner.
* These fields are required in order to create an organizational unit.		

**Tip:** If your organization uses different terminology for the values in the drop-down lists that are available at the various objects, you can use the *Label Manager* functionality to change, add, or remove values on those lists. For more information about Label Manager functionality, see 3.3.2, “Customizing the IBM Workplace for Business Controls and Reporting labels” on page 148.

**Restriction:** Many objects in the application have similar fields. For several of these fields, there are limitations on the size of the fields. We consolidated the list here for your convenience:

- ▶ Name fields: 512 characters
- ▶ Description fields: 1024 characters
- ▶ Rationale fields: 1024 characters
- ▶ Procedure comments: 1024 characters
- ▶ (Auditor) Observations: Deficiency, Implication, Recommendation, Mitigating control: 254 characters each
- ▶ Attachment titles: 1024 characters
- ▶ Attachment file names: 254 characters
- ▶ Certification comments: 1024 characters

### **Important considerations regarding delegates**

All of the objects in IBM Workplace for Business Controls and Reporting that can be assigned an owner can also be assigned a delegate. Delegates are used to assign responsibility or access to additional individuals. In making a delegation assignment, the owner specifies the individual or individuals that are to be assigned as delegates and their role. The role designation will govern the rights that the delegate will have relative to the object. This capability provides object owners with a powerful capability to allocate work and provide access while retaining the original accountability.

However, this capability is not without potential for problems if not implemented and used properly. Potential concerns with delegation are that it could undermine segregation of duties or diffuse accountability. The following sections provide examples of how a delegate designation might undermine segregation of duties or diffuse accountability.

#### ***Undermine segregations of duties***

To support segregation of duties, a company has a policy that process and subprocess owners cannot also own the underlying controls. The manager of accounts payable (AP) is assigned as a process and subprocess owner, and the accounts payable supervisor reporting to the manager is assigned as the control owner for all controls. As part of normal business practices, the AP manager will delegate all of their responsibilities to the AP supervisor. The AP manager goes on vacation and delegates all responsibilities including IBM Workplace for Business Controls and Reporting to the AP supervisor. The AP supervisor is now effectively the object owner for the AP process, subprocesses, and controls. The

segregation rule regarding process and subprocess ownership and controls has been violated.

### ***Diffuse accountability***

IBM Workplace for Business Controls and Reporting supports the assignment of an unlimited number of delegates to any available role. The object type determines available roles, for example, a delegate to a process object should not be made to an organization object role (that is, organization helper). However, if too many people are assigned as delegates or role designations are not clear, it becomes unclear who is responsible for what.

### ***Considerations when making delegate assignments***

To address these concerns, we suggest the following guidelines:

- ▶ For delegations that will have similar rights to the object owner, assign delegates from another functional unit when segregation of duties issues exists. In the previous case, delegating to the payroll manager addresses the issue.
- ▶ Limit the number of delegates and roles to a particular object. This is especially important where delegates will have the ability and responsibility to update the object.
- ▶ Make delegation designation assignments temporary or for a specific purpose that is clearly defined and articulated.

However, it is important to note that the purpose of this discussion is not to discourage the use of delegations. As stated earlier, delegations provide IBM Workplace for Business Controls and Reporting users with tremendous flexibility to manage control management work activities. The objective of this section is to provide information about potential problems that might be created through a delegation assignment and to provide guidance about how to avoid those problems. With proper planning and consideration, delegations can provide tremendous opportunity to provide access to individuals that need to review information in IBM Workplace for Business Controls and Reporting or perform tasks within it.

### ***E-mail notifications***

E-mail notifications can be set up to be sent out when specific changes are made to the organization unit and other objects within IBM Workplace for Business Controls and Reporting such as:

- ▶ Business unit
- ▶ Process
- ▶ Subprocess

- ▶ Objective
- ▶ Risk
- ▶ Controls
- ▶ Test procedures
- ▶ Import
- ▶ Control evaluations

Rules are based on selections made in the Notification section. We discuss this in detail in 3.4, “Configuring notifications and alerts” on page 152.

## 2.4.1 Adding a business unit

The top-level business unit is created when the application is installed and set up for the first time. After that is completed, use following process for creating a business unit (see Figure 2-18):

1. Go to the Organization tab.

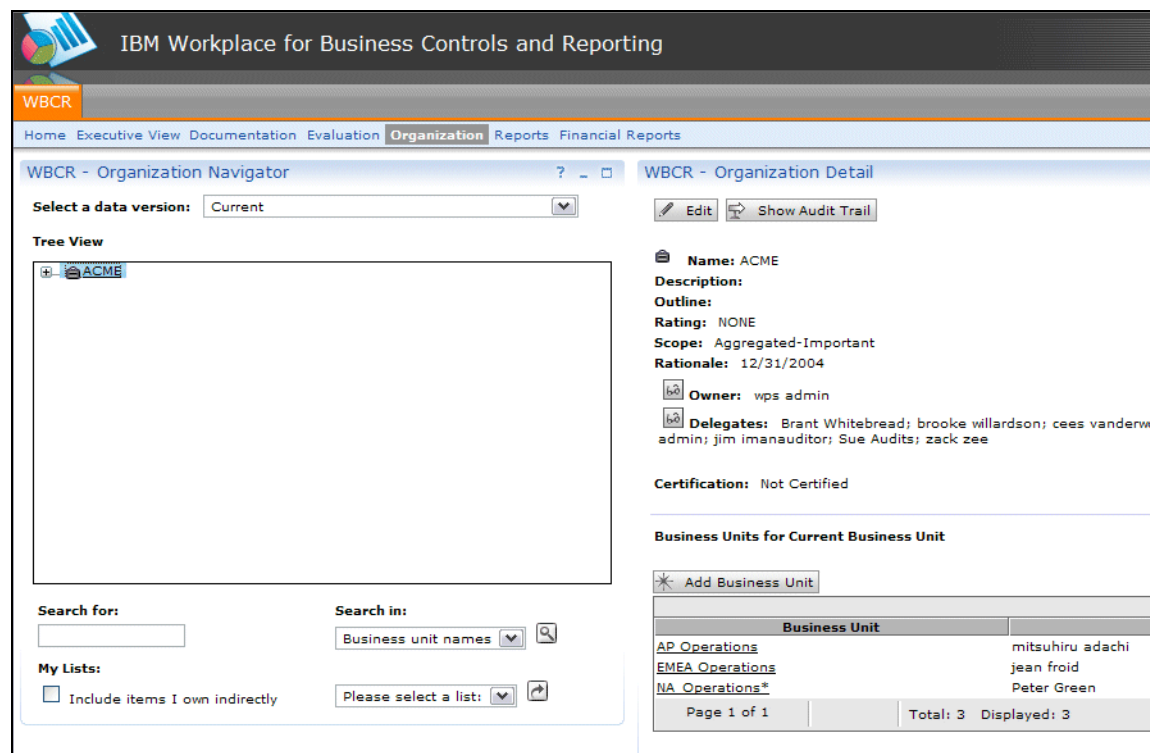


Figure 2-18 Organization tab

2. Select the level within the organization tree hierarchy under which you want the new business unit to be placed.
3. Click the **Add Business Unit** button in the bottom-right quadrant.
4. Fill in the appropriate fields described earlier.
5. Click **OK**.

Your new business unit has been created in the hierarchy.

## 2.4.2 Adding or changing an owner or delegate

When you create a business unit, process, subprocess, control, or process, it will default the ownership to the person who is creating that object. A user will only be able to create objects if that user is permitted access in two ways:

- ▶ If the user has administrator rights to the system (discussed in further detail in 3.1, “Administrative responsibilities” on page 118)
- ▶ If the user is listed as an owner at one or more levels higher than the user needs to create the object.

**Example:** If you need to create a *finance* business unit under *NA Operations*, you need ownership or delegated ownership at the *NA Operations* business unit level or the *ACME* parent organization in this scenario.

### Changing an owner

To change an owner, perform the following steps:

1. Make sure that you are in Edit mode for the object you want to change by clicking the **Edit** button in the Details window.
2. To change an owner, click the pencil icon next to the Owner field, as shown in Figure 2-19.



Figure 2-19 Pencil icon

3. Click **Change Owner**, as shown in Figure 2-20 on page 40.

Figure 2-20 Change Owner button

In this window, you see the Roles drop-down list. Note that you will see this list in any Owner or Delegates fields. This function is to provide users within the system with custom access to an object in the system.

**Example:** You can potentially add a delegate at the business unit level and change that user's role to *control owner*. This allows that user to have delegated ownership to all the controls under that business unit.

Based on the current implementation of IBM Workplace for Business Controls and Reporting, this might provide unwanted side effects, such that one of the role permissions is the ability for an object owner to *create child objects*. In theory, you want a control owner to have the ability to create procedures or observation records for a control. However, the create child object permission is applied at the level at which the role was designated. In this case, if you gave a user the control owner role at the business unit level, you are giving this user the ability to potentially create additional units and processes under this organization unit.

**Important:** Use extra caution when using the Roles field within IBM Workplace for Business Controls and Reporting. Because role assignments grant access rights to individuals, care must be taken to ensure that roles are consistent with desired authority. We recommend accepting the default selection that is presented to you for the object with which you are working. See 3.2, "IBM Workplace for Business Controls and Reporting access control" on page 125 for further details about roles and permissions.

4. In the Search for field, type all or part of a users name and click the **Search** button, as shown in Figure 2-21 on page 41.

Search for:

zee

Search

Select owner for this resource.

Select	Users	Email
Total: 0 Displayed: 0		

OK Cancel

Figure 2-21 Search button

5. Select a user from the list by selecting the corresponding radio button and clicking **OK**, as shown in Figure 2-22.

Search for:

zee

Search

Select owner for this resource.

Select	Users	Email
<input checked="" type="radio"/>	zack zee	

Page 1 of 1 Total: 1 Displayed: 1

OK Cancel

Figure 2-22 Select a user

6. Click **OK** to save.
7. Click **OK** again to save the change at the object level.

## Adding or deleting a delegate

Within the function of setting up delegates, you have the ability to add or delete these users from an object in the system. To add or delete a delegate, perform the following steps:

1. Make sure that you are in Edit mode for the object you want to change by clicking the **Edit** button in the Details window.
2. Click the pencil icon next to the Delegates field, as shown in Figure 2-23.

\* Owner: wps admin

Delegates:

Figure 2-23 Owner and Delegates

3. Click the **Add** button to add a delegate to the list. Or, click the **Delete** icon to remove a user. See Figure 2-24.

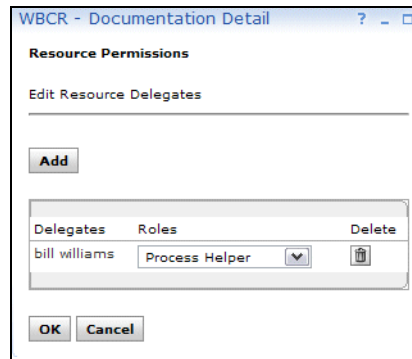


Figure 2-24 Add or Delete

4. When adding a delegate, select whether you want to add **Users** or **User Groups** from the drop-down list, as shown in Figure 2-25.

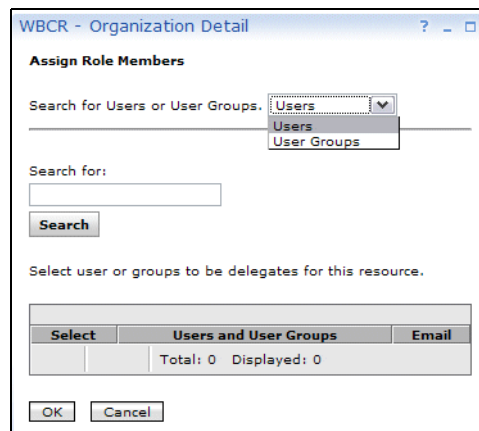


Figure 2-25 Users or User Groups

5. Type in all or part of the user's name or group name in the Search for field and click **Search**.

**Tip:** You do not have to know the complete name. This search provides results even if you enter only a few characters.

6. Select one or more users and groups from the results list.
7. Click **OK** to save the user selection.



8. Click **OK** again to save the changes to the organization unit.

The same procedures apply when dealing with ownership for process, subprocess, control, or procedure objects.

### 2.4.3 Moving a business unit

IBM Workplace for Business Controls and Reporting provides the ability to move a business unit and all of its associated documentation to a new location in the hierarchy, for example, if your company experiences a reorganization or has the need to adjust the hierarchy for logistical reasons. A few important notes on this function:

- ▶ While business units are set up and maintained (name changes, owner changes, and so on) through the Organization tab, organization movement is handled through the Move button under the Documentation tab shown in Figure 2-26 on page 44. This is because you are not only moving the organization object, but also all the documentation and evaluation objects under it.
- ▶ The mover must have access control to both the originating business unit parent and the destination business unit parent.
- ▶ Movement is effective for the currently active version, and it must be done in totality; business units cannot be split into several business units.
- ▶ Business units can be combined by creating a new parent business unit and placing the two or more business units that create the combination under it. The effect is that when you report from the new business unit, it is rolling up the information from the two (or more) subunits and creating a unified view of the two or more previously separated business units.

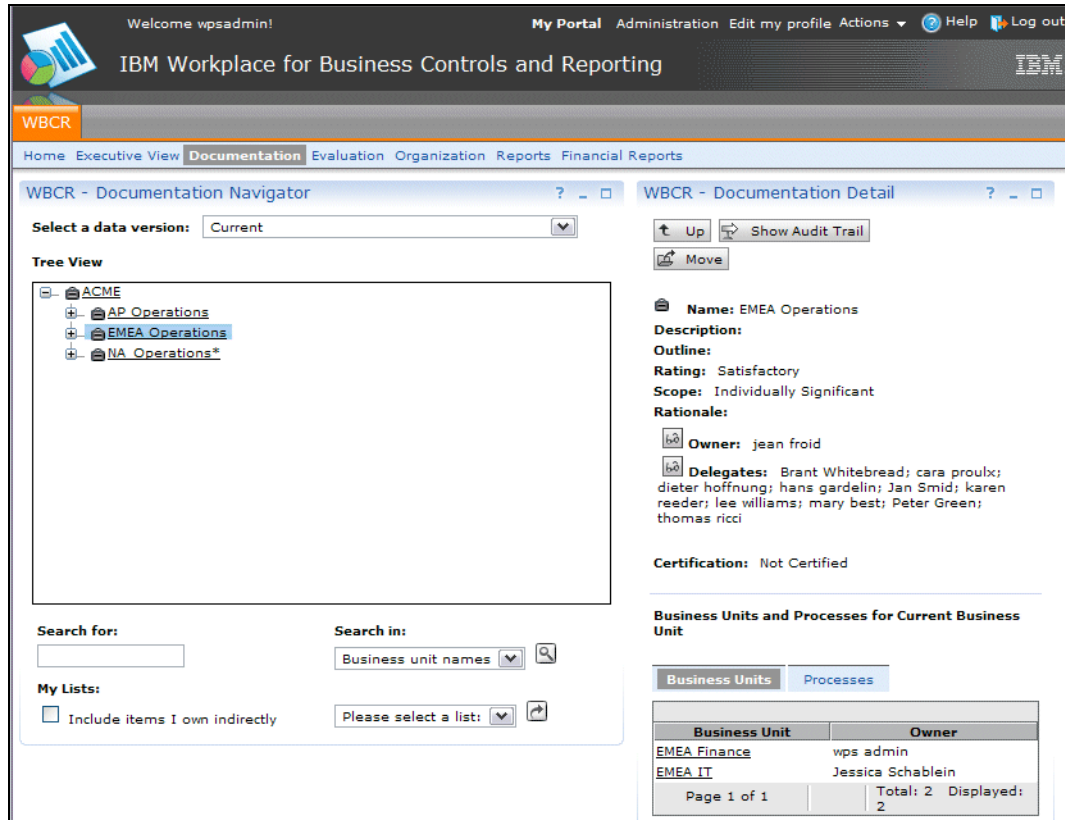


Figure 2-26 Documentation tab for a Move operation

To move an organization unit and its dependent objects, perform the following steps:

1. Go to the Documentation tab.
2. Click the business unit you want to move in the Tree View so that its details are in the Detail portlet.
3. Click the **Move** button, as shown in Figure 2-27 on page 45.

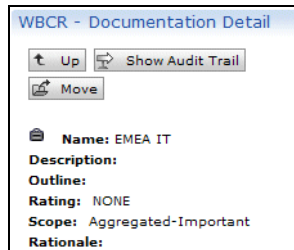


Figure 2-27 Move button

4. In the Tree View on the left, click the business unit under which you want to move the business unit.
5. Click the **Place Business Unit** button, as shown in Figure 2-28.

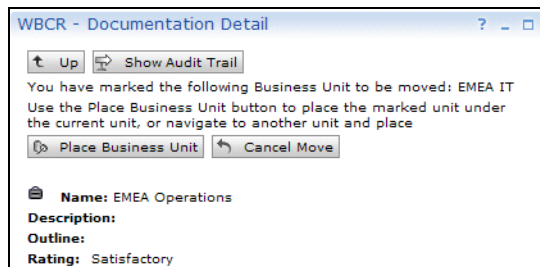


Figure 2-28 Place Business Unit button

The business unit and any dependent objects including documentation are placed in the new location.

**Note:** You might have to refresh your view to see the change in the Tree View.

## 2.5 Creating financial statements

Setting up financial reports in IBM Workplace for Business Controls and Reporting is also a part of the scoping phase of the project. Financial statements primarily provide companies with the ability to prioritize and scope their work to manage controls for financial reporting by giving them a mechanism for determining which controls support or provide reasonable reassurance for significant accounts. They can then focus on key controls that support significant financial accounts. After the customer has gone through evaluation and makes a determination that a particular control is ineffective, the customer can assess the impact by considering the dollar value of the significant account and the effectiveness and potential for mitigation of other controls over the same

significant account. Therefore, when a control has been tested as ineffective, we understand the impact of that control on our financial data. Financial reports include:

- ▶ Income statement
- ▶ Balance sheet
- ▶ Disclosures

It is important to note that linking financial reports to subprocesses is optional. Controls that do not necessarily directly impact financial statements (such as general IT controls) can be documented and evaluated in the system just like financial controls.

Subprocesses can be linked to one or more financial reports. You can also select multiple line items that this subprocess can affect. For example, you can measure the impact of an control under the *Account for Sales Transactions* subprocess against significant line items from both the income statement and the balance sheet.

You can have one set of financial reports per application or database instance. However, the financial documents are completely flexible and enable you to customize your financial records. You can potentially organize your statements by account type or organizational unit.

**Important tip:** The captions and subcaptions are sorted by alphabetical order within the application. You might want to apply a numbering scheme to manage placement of the line items. See Figure 2-33 on page 51 for an example of a numbering schema.

## 2.5.1 Income statement

Here, we discuss the income statement, procedures for building it, and an optional method for structuring the elements.

Figure 2-29 on page 47 is an example of an income statement. You will notice that it contains captions and subcaptions, and key accounts are indicated by a check mark in the Significant column at the subcaption level.

The captions are the headings in bold, and the subcaptions are the line items.

Welcome wpsadmin! My Portal Administration Edit my profile Actions

## IBM Workplace for Business Controls and Reporting

BCR

Home Executive View Documentation Evaluation Organization Reports **Financial Reports**

### /BCR - Financial Documents

Select a Financial Document:  
Income Statement

#### Income Statement

\* Add Caption \* Add Subcaption Show Audit Trail

	Current Year-End Balance (millions)	Prior Year-End Balance (millions)	Significant
<b>Costs and Expenses</b>			
Cost of Goods Sold	31,903	26,812	✓
Cost of Services Sold	14012	13022	✓
Interest Expense and Other Financial Charges	427	365	
Research & Development	5077	4750	
<b>Costs and Expenses</b>			
Operating (exclusive of depreciation and amortization shown below)	1917	1792	✓
Selling, general and administrative	295	358	✓
<b>Earnings before Income Taxes</b>			
Provision for Income Taxes	-5711	-4860	
<b>Gross Margin</b>			
EMEA	1,300,000	1,200,000	✓
<b>Income from Continuing Operations</b>			
<b>Revenues</b>			
Earnings from Financing	3014	2826	

Page 1 of 2 1 Go Total: 22 Displayed: 15

Figure 2-29 Income statement from the Financial Reports tab

## Creating a caption

You can create a caption by clicking the **Add Caption** button. You will see the fields shown in Figure 2-30; note that the balance fields are optional. Table 2-2 on page 48 describes the available fields. For example, we might enter Costs and Expenses as the caption.

To add a new Caption, complete the fields below, then click OK.

Caption:

Current Year-End Balance (millions):

Prior Year-End Balance (millions):

OK Save and Add Another Cancel

Figure 2-30 Adding a Caption to the financial statements

After completing the entry, you can click **OK** to save that one entry, or **Save and Add Another** to quickly create several captions in a row.

Table 2-2 Fields available when adding a caption

Field	Value	Description
Caption*	Text	Name of the subcaption line item
Current Year-End Balance (millions)	Text	Usually a numerical value of the (projected) current year-end balance
Prior Year-End Balance (millions)	Text	Usually a numerical value of the prior year-end balance
* Required field		

### Creating a subcaption

You can create a subcaption by clicking the **Add Subcaption** button at the financial statement level. Here, you will see the fields shown in Figure 2-31 available to fill in, as described in Table 2-3.

To add a new Subcaption, complete the fields below, then click OK.

Caption:

Subcaption:

Current Year-End Balance (millions):

Prior Year-End Balance (millions):

Significant: ☐

Figure 2-31 Adding a Subcaption

Table 2-3 Fields for adding a subcaption

Field	Value	Description
Caption*	Existing captions	This is a drop-down list to select under which caption you want your subcaption to be placed.
Subcaption*	Text	Name of the subcaption line item.
Current Year-End Balance (millions)*	Text	Usually a numerical value of the (projected) current year-end balance.
Prior Year-End Balance (millions)*	Text	Usually a numerical value of the prior year-end balance.

Field	Value	Description
Significant	Check box	Select this check box if this line item or account is significant.
* Required fields		

Financial reports can be imported as a system administration task through a spreadsheet or entered manually. If imported, they can be maintained through dynamic updates. For more information about dynamic updates, see “Reimporting a spreadsheet and dynamic update” on page 172.

**Important:** Only subcaption line items that have been marked as Significant are available for linkage with subprocess, as described in “Adding a subprocess” on page 61.

### Organizational options for income statements

There are three optional organization methods for income statements:

- ▶ Alphabetical order (default)
- ▶ Functional view
- ▶ Organizational view

By adding a numbering scheme, you can sort and organize your accounts, and because the application sorts alphabetically, adding a numbering scheme will help keep your income statement in an order you prefer.

Figure 2-32 on page 50 shows an example of an income statement organized by a functional view

	Current Year-End Balance (millions)	Prior Year-End Balance (millions)	Significant
<b>100 Revenues</b>			
101 Product Revenue	44,787	38,544	✓
110 Services Revenue	42,365	36,360	✓
120 Financing Revenues	3,014	2,826	✓
190 Other Income	436	798	
<b>200 Cost of Goods</b>			
201 Beginning Inventory	5,689	5,897	✓
210 Material Purchases	45,639	43,678	✓
220 Warehousing Expenses (non depr)	12,678	11,563	✓
225 Warehousing Depreciation	4,561	4,754	✓
240 Supplies	1,256	1,456	
250 Ending Inventory	5,543	5,689	✓
<b>300 Cost of Services</b>			
301 Services Salaries	18,456	15,765	✓
310 Services Depreciation	1,346	1,259	

Figure 2-32 Income statement example organized by a functional view

Figure 2-33 on page 51 shows an example of an income statement organized by organizational unit and numbering set up by region. In this example, the logic behind the numbering is:

North America = 1000

Revenues = 1100

Account #1 = 1101

Account #2 = 1102

and so on...

Cost of Sales = 1200

Account # 1 = 1201

Account #2 = 1202

and so on...

EMEA = 2000

Revenues = 2100



Cost of Sales = 2200

Account # 1 = 2201

APAC = 3000

The screenshot displays the IBM Workplace for Business Controls and Reporting interface. The top navigation bar includes links for Home, Executive View, Documentation, Evaluation, Organization, Reports, and Financial Reports. The main content area is titled 'WBCR - Financial Documents' and shows a dropdown menu for 'Income Statement'. Below this, the 'Income Statement' section is displayed with a table of financial data organized by organization unit. The table has columns for 'Current Year-End Balance (millions)', 'Prior Year-End Balance (millions)', and 'Significant'. The data is categorized under '1000 NA Operations' and includes various revenue and expense items. A status message at the bottom indicates 'New item was created successfully.'

	Current Year-End Balance (millions)	Prior Year-End Balance (millions)	Significant
<b>1000 NA Operations</b>			
1110 Product Revenue	44,787	38,544	✓
1111 Services Revenue	42,365	36,360	✓
1112 Financing Revenues	3,014	2,826	✓
1119 Other Income	436	798	
1210 Beginning Inventory	5,689	5,897	✓
1215 Material Purchases	45,639	43,678	✓
1225 Warehousing Expense (non depr)	12,678	11,563	✓
1230 Warehousing Depreciation	4,561	4,754	✓
1250 Supplies	1,256	1,456	
1290 Ending Inventory	5,543	5,689	✓
1310 Services Salaries	18,456	15,765	✓
1320 Services Benefits & Other Employee Expenses	3,657	3,284	✓
1330 Services Depreciation	1,346	1,259	
1410 Sales Salaries	12,348	11,943	✓

Figure 2-33 Income statement organized by organization unit

## 2.5.2 Balance sheet

The balance sheet provides one additional level of categorization as compared to the income statement. The captions, and their subcaptions can be grouped by *category*. In Figure 2-34 on page 52, you see the category as centered, bold text.

The screenshot displays the IBM Workplace for Business Controls and Reporting interface. At the top, there is a navigation bar with 'Welcome wpsadmin!', 'My Portal', 'Administration', 'Edit my profile', and 'Actions'. Below this is a breadcrumb trail: 'Home > Executive View > Documentation > Evaluation > Organization > Reports > Financial Reports'. The main content area is titled 'WBCR - Financial Documents' and includes a dropdown menu to 'Select a Financial Document:' with 'Balance Sheet' selected. Below this, there are buttons for 'Add Category', 'Add Caption', 'Add Subcaption', and 'Show Audit Trail'. The main table shows the Balance Sheet with columns for 'Current Year-End Balance (millions)', 'Prior Year-End Balance (millions)', and 'Significant'. The table lists various assets and their balances, with checkmarks indicating significant items.

	Current Year-End Balance (millions)	Prior Year-End Balance (millions)	Significant
<b>Assets</b>			
<b>Accounts Receivable</b>			
<b>Agents A/R Balance</b>			
AMGPL	874.1	865	✓
<b>Cash</b>			
AMGPL	-100	-100	✓
Non-US Government Securities	23	20	
<b>Deferred Taxes</b>			
<b>Goodwill</b>			
<b>Inventories</b>			
Finished Goods	992	960	✓
WIP and Raw materials	1950	2188	✓
<b>Long Term Financing Receivables</b>			
<b>Marketable Securities</b>			
Time Deposits and other Obligations	357	593	

Page 1 of 3   1   Go   Total: 39   Displayed: 15

Figure 2-34 Balance Sheet example

The process for adding a caption or a subcaption are the same as described in “Creating a caption” on page 47 and “Creating a subcaption” on page 48. However, when you add a caption, you now have an additional field enabling you to select a category under which you want that caption, similar to the subcaption.

You can add a category by clicking the **Add Category** button. This provides you with one text field to name your category.

## 2.5.3 Disclosures

Generally, any material item in the financial statements should be disclosed if the computation for the item is not clearly apparent. The structure of the disclosures report is exactly the same as the 2.5.1, “Income statement” on page 46.

After your financial statements and organizational structure have been defined, the scoping phase is complete, and you are ready to move to the documentation phase of the project.

## 2.6 Creating documentation and the process hierarchy

The documentation phase of the project is the most labor-intensive portion of the project, and most companies who have had to comply with the Sarbanes-Oxley Act or similar legislation already have their processes and controls documented in various forms, with the most common format being the spreadsheet.

In this phase, you build your process hierarchy. IBM Workplace for Business Controls and Reporting follows the COSO framework. Processes are identified that have one or more subprocesses, and then one or more objectives, one or more risks, and one or more controls. Finally, test procedures are associated with the controls that are evaluated so that controls can be rated for effectiveness.

There are three ways to get documentation into the application:

- ▶ **Manual input:** This is creation of the process and any of its related data through the interface of the application manually. The examples we follow in this section are shown through the manual process.
- ▶ **Spreadsheet template import:** IBM Workplace for Business Controls and Reporting offers spreadsheet templates for customers to bring existing documentation into the application. Generally, the compliance project team will map their existing documentation into the template and make that data available to the system in what we refer to as a *control catalog*. A business unit owner will import process and control information from these catalogs. We discuss how to set up a catalog and load it into the system in greater detail in 3.5, “Import” on page 158. Control catalogs can also be separately purchased from auditing firms.
- ▶ **A back-end data import:** Using this method, process documentation is loaded and associated with the appropriate business units by an administrator through an import routine. The business unit owner does not need to take any action in order to get the initial documentation for the business unit loaded into the system. For further details, refer to 3.5.2, “Data import” on page 174.

### ***Import overview and dynamic update introduction***

After spreadsheets are loaded into the system library as a catalog, the second phase of an import is for a business unit owner to go in and import the processes and subprocesses from the catalog in whole or in part and associate them with a business unit. For example, you might have created a catalog that had five

processes in it, and each one of those five processes had six subprocesses underneath it.

You decide from a business unit level that from one catalog you want only two of the processes, and of those two processes, you only want four of each of the subprocesses, and pull just that information into your business units. As changes are made to that initial catalog, you then get those changes pushed back out to you at the business unit level. The same process can be imported multiple times under different business units.

For the remainder of this section, we describe the details and fields at each level of the process documentation that includes:

Process → Subprocess → Objective → Risk → Control → Procedure

Figure 2-35 is an example of a process hierarchy that would be developed during the documentation stage. This is the example we follow in the following sections.

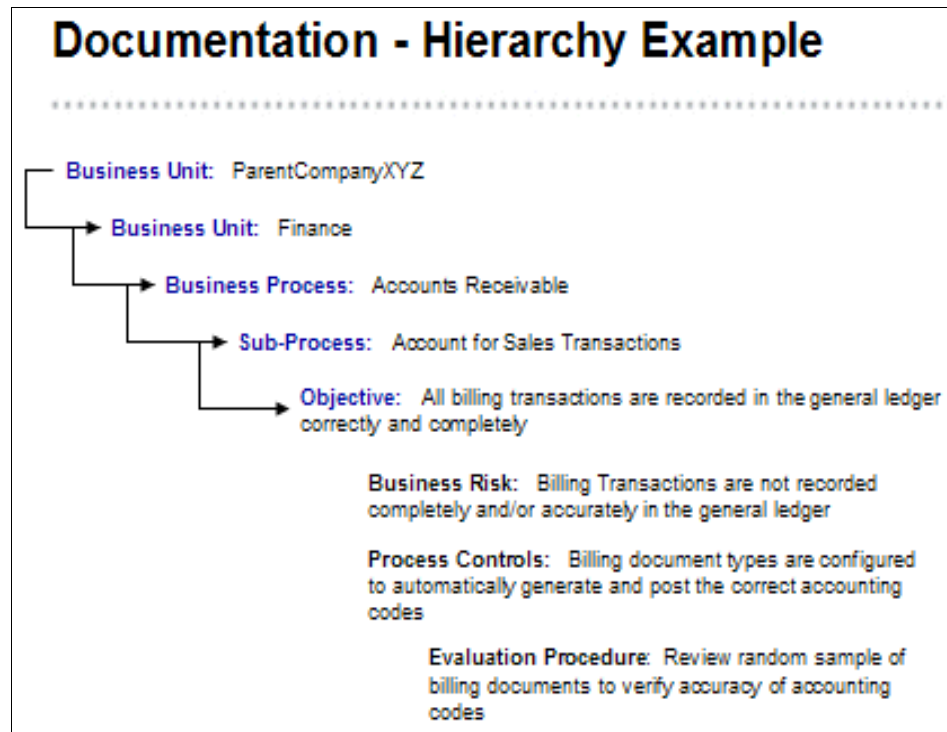


Figure 2-35 Documentation hierarchy example

## 2.6.1 Process

A process is a defined category for subprocesses and their subsequent controls and test procedures. It is at this level that we can define ownership, certify a process, and mark documentation ready for evaluation.

For this walk-through, we use the *Accounts Receivable* process.

Figure 2-36 on page 56 shows the Finance business unit. You will notice in both the tree list and the children list that there are quite a few processes listed in this system today. If we were just starting the documentation process, we would not see any processes and we would have to populate the data manually by clicking the **Add Process** button, or import the data from a catalog by clicking the **Import Process** button. Both buttons are in the lower-right quadrant of the window. We walk through both options after a description of the fields available at the process level.

**Note:** IBM Workplace for Business Controls and Reporting V2.5.1 gives you the capability to add attachments and URL references at the process level within the hierarchy. We discuss this in further detail 2.6.3, “Attachments and URLs” on page 64.

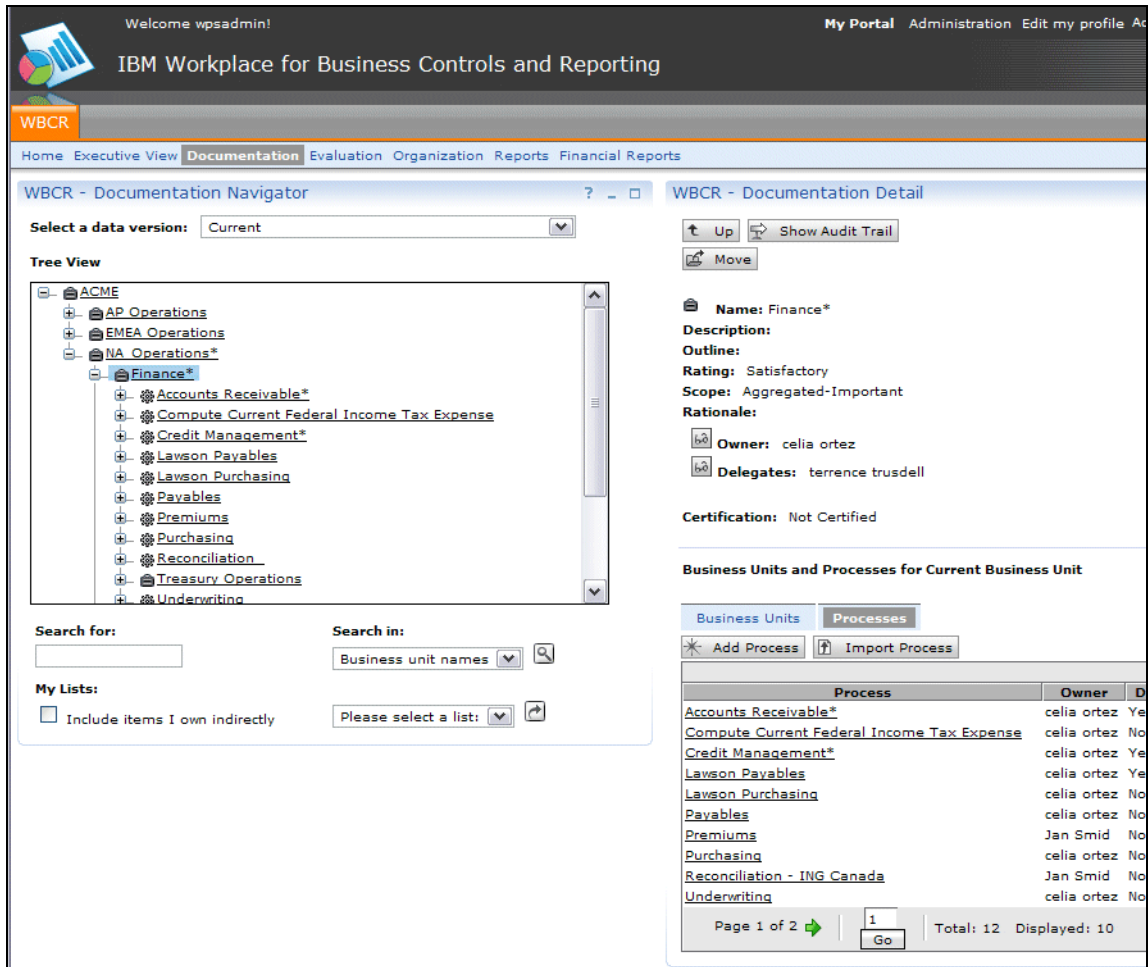


Figure 2-36 Documentation tab example

Figure 2-37 on page 57 shows the fields for a process if we create a new process object or edit an existing one.

Figure 2-37 Fields to fill in when creating a process

Table 2-4 provides a list and description of each of the fields available at the process level.

Table 2-4 Field values for processes

Field	Value	Description
Process*	Text	This is the name of the process.
Description	Text	A text field for a description of the process.
Rating*	<ul style="list-style-type: none"> <li>▶ None</li> <li>▶ Satisfactory</li> <li>▶ Marginally Acceptable</li> <li>▶ Unsatisfactory</li> </ul>	This is the rating for the process. In general, Satisfactory means little to no risk, Marginally Acceptable means moderate risk, and Unsatisfactory means high risk. These values can be customized for your business usage.
Outline	Text	A text field to enable you to apply an outline structure to your processes.
Owner*	User name	A selection box in which to designate who has ownership of the process. There can only be one owner of a process.
Delegates	User or group names	Where you can choose one or more users who need delegated access to the process. These users have the same default access as the owner.

Field	Value	Description
Documentation Complete	<ul style="list-style-type: none"> <li>► Yes</li> <li>► No</li> </ul>	This field is the trigger to indicate whether controls are ready for the evaluation phase and when reporting for that process will begin. When you are building your documentation, this is usually set to <b>No</b> . When the documentation cycle for a process is complete and ready for evaluation, this is set to <b>Yes</b> .
* These fields are required in order to create a process.		

## Adding a process

This activity is fairly straightforward. To add a process, perform the following steps:

1. Go to the Documentation tab.
2. Select and click the business unit *under* which you want to add the process.
3. Go to the Processes tab in the lower-right quadrant, as shown in Figure 2-38.

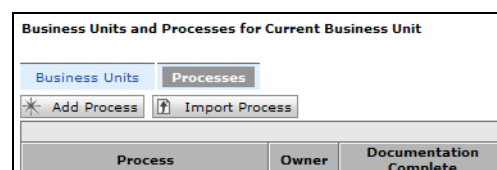


Figure 2-38 Example of Business Units and Processes tabs

4. Click the **Add Process** button.
5. Fill in the fields, as described in Table 2-4 on page 57.
6. Click **OK**.

## Importing a process

In order to be able to import a process under a business unit, you need to make sure that the documentation has been loaded into the system as a catalog in advance. For more information about this process, see 3.5.1, “Catalog import” on page 160. To import a process, perform the following steps:

1. Go to the Documentation tab.
2. Select and click the business unit *under* which you want to add the process.
3. Go to the Processes tab in the lower-right quadrant, as shown in Figure 2-39 on page 59.



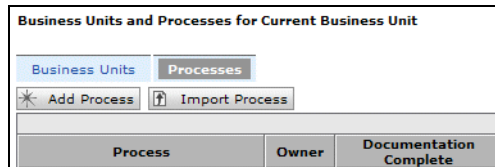


Figure 2-39 Example of Business Units and Processes tabs

4. Click the **Import Process** button. You will see a list of available catalogs from which to choose processes. Use the paging buttons or type in the page number and click **Go** to navigate if the list of catalogs is longer than a single page. See Figure 2-40.

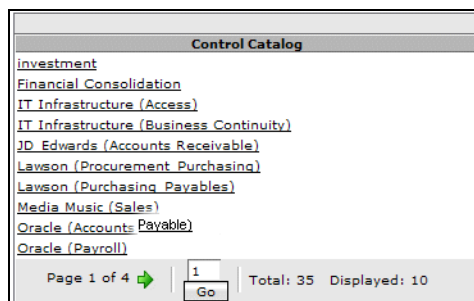


Figure 2-40 Available catalogs in the library

5. Click the catalog where your process is stored. In this example, we select **Oracle (Accounts Payable)**. This provides you with a list of all the processes available in that catalog for importing.
6. Select the process you want to import. We select **Process Accounts Payable** in this example. This selection then provides you with a list of the subprocesses available for importing. Figure 2-41 shows the Process list.

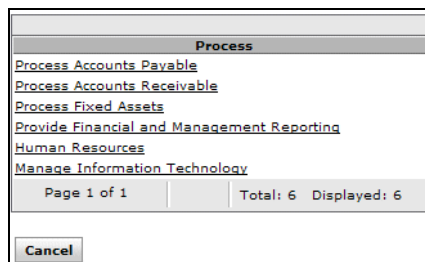


Figure 2-41 Process list

7. Select the check box next to one or more subprocesses that you want to import, as shown in Figure 2-42 on page 60.

Select	Subprocess
<input checked="" type="checkbox"/>	Record Invoices
<input type="checkbox"/>	Process Discounts
<input checked="" type="checkbox"/>	Process Returns and allowances
<input type="checkbox"/>	Validate Accounts Payable

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Figure 2-42 Subprocess selection

- Click **OK** and the application imports the process/subprocesses and associated documentation under the business unit you chose.

## 2.6.2 Subprocess

Subprocesses are the child objects of a process. A subprocess is a key object within the documentation phase. In addition:

- ▶ There can be many subprocess within a single processes.
- ▶ The subprocess is where you optionally link to your financial line items.
- ▶ The subprocess is where you have the capability to attach documentation or reference existing documentation through a URL within the tool.

Figure 2-43 shows the fields available for a subprocess.

WBCR - Documentation Detail

Edit one or more of these fields, then click OK.

\* Subprocess:

Account for Sales Transactions

Description:

description

\* Rating:

Satisfactory

\* Owner: celia ortez

\* Delegates:

Outline:

Select Statement:

None

Figure 2-43 Fields to fill in when creating a subprocess

Table 2-5 describes each of the fields available at the subprocess level within the application.

*Table 2-5 Field descriptions for the subprocess*

Field	Value	Description
Subprocess*	Text	This is the name of the subprocess.
Description	Text	A text field for a description of the subprocess.
Rating*	<ul style="list-style-type: none"> <li>▶ None</li> <li>▶ Satisfactory</li> <li>▶ Marginally Acceptable</li> <li>▶ Unsatisfactory</li> </ul>	This is the rating for the subprocess. In general, Satisfactory means little to no risk, Marginally Acceptable means moderate risk, and Unsatisfactory means high risk. These values can be customized for your business usage.
Owner*	User name	A selection box that designates who has ownership of the subprocess. There can only be one owner of a subprocess.
Delegates	User or group names	Where to choose one or more users who need delegated access to the subprocess. These users have the same default access as the owner.
Outline	Text	A text field to enable you to apply an outline structure to your subprocesses.
Select Statement	<ul style="list-style-type: none"> <li>▶ None</li> <li>▶ Income Statement</li> <li>▶ Balance Sheet</li> <li>▶ Disclosures</li> </ul>	<p>This selection enables you to understand the impact on the company's finances when you have an ineffective control. When you make a selection from this drop-down list, the significant line items from the financial statement appear and you can select one or more line items from one or more financial statements to be associated with this subprocess.</p> <p><b>Note:</b> You might not see the actual numbers. The administrator can hide those values through the global settings.</p>
* These fields are required in order to create a subprocess.		

## Adding a subprocess

To add a subprocess, perform the following steps:

1. Go to the Documentation tab.

- 2. Select and click the process under which you want to add the subprocess. In this example, we chose **Accounts Receivable**.
- 3. Click the **Add Subprocess** button in the lower-right quadrant, as shown in Figure 2-44.

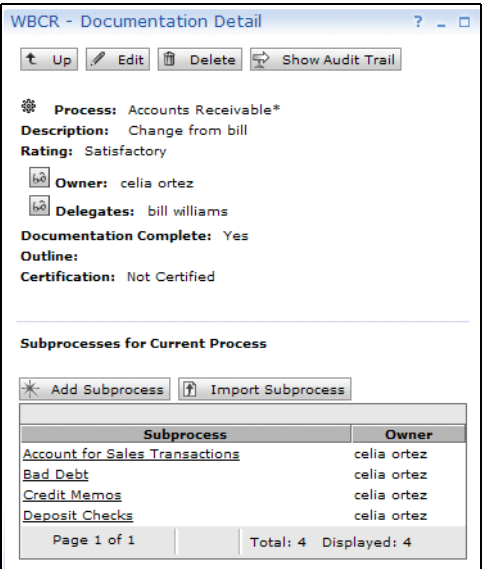


Figure 2-44 Process with Subprocesses

- 4. Fill in the fields as described in Table 2-5 on page 61.
- 5. Click **OK**.

**Importing a subprocess**

When you import a subprocess, you can place this subprocess under any process you like. As you will see in the following scenario, you will select a process to locate the subprocess that you want to include in the system, but when you import it, that subprocess can be placed under any process you want.

For example, if components of the Accounts Payable application have been developed in-house, certain general IT controls around application access control might apply to this process. You can import a subprocess for Access Control, defined in a catalog under process Manage Information Technology. In this case, you import that subprocess under Accounts Payable. To import a subprocess, perform the following steps:

- 1. Go to the Documentation tab.
- 2. Select and click the process (for example, **Accounts Payable**) under which you want to add the subprocess.

3. Click the **Import Subprocess** button. You will see a list of available catalogs available from which to choose processes, as shown in Figure 2-45.

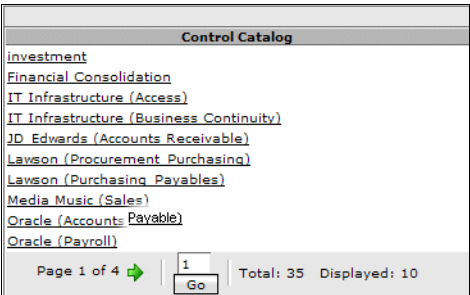


Figure 2-45 Control Catalog selection

4. Click the catalog where your process is stored. In this example, we again select the **Oracle (Accounts Payable)** catalog. This provides you with a list of all the processes available.
5. Select the process in which your subprocess exists. We select **Manage Information Technology** in this example. This selection then provides you with a list of the subprocesses available for importing, as shown in Figure 2-46.

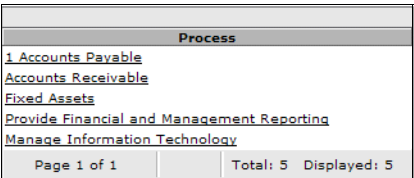


Figure 2-46 Process list

6. Select the check box next to the one or more subprocesses you want to import, as shown in Figure 2-47.

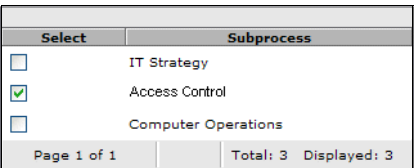


Figure 2-47 Subprocess selection

7. Click **OK** and the application imports the subprocess and associated documentation under the process you chose in this exercise.

## 2.6.3 Attachments and URLs

As mentioned earlier, you have the ability to add attachments or reference URLs at the subprocess and the test procedure levels of the hierarchy. This is useful if you want to reference things such as process documentation or workflow diagrams within the tool. If your company wants the documents to be contained within and managed by IBM Workplace for Business Controls and Reporting, you can deposit the documents directly into the application. If your company uses an existing document management solution or Web site to manage these types of documents, you can simply reference the document's location through a URL.

At this point, it is assumed that the documentation you will be adding to the system has gone through a creation and review cycle and is in a complete status. IBM offers several solutions to assist with the management of document creation that have basic document management capabilities, such as check in/check out, versioning, and workflow capabilities. IBM offers the following solutions:

- ▶ IBM Lotus QuickPlace®
- ▶ IBM DB2 Content Manager
- ▶ IBM Lotus Domino Document Manager

Or, leverage your own document management application and point to it through a URL.

### Adding an attachment

This process is exactly the same at the subprocess or procedure level. To add an attachment, perform the following steps:

1. Choose the subprocess or procedure where you want to attach your document.
2. Go to the Attached files and URLs tab in the lower-right quadrant, as shown in Figure 2-48.

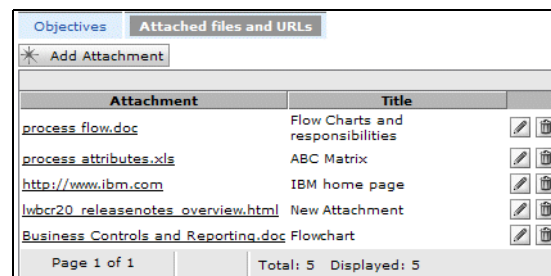


Figure 2-48 Attached files and URLs tab

3. Click the **Add Attachment** button.

4. Fill in the Title field, as shown in Figure 2-49. This appears in the Title column, as shown in Figure 2-48 on page 64.

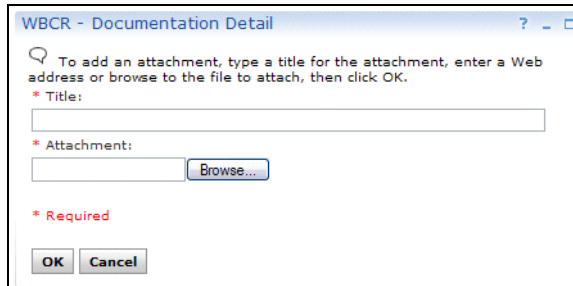


Figure 2-49 Fields to fill in when creating an attachment

5. To attach a file:
  - a. Click **Browse**.
  - b. Select the file you want to add and click **OK**.
6. To reference a URL:
  - a. Enter the URL (for example, <http://itsointranet.com>) to which you want to link.
  - b. Click **OK**.
7. Click **OK** again.

You will now see your attachment or URL in the list.

### Enhancements in Version 2.5.1 for attachments and URLs

In IBM Workplace for Business Controls and Reporting V2.5.1, you now have the ability to designate whether it is a file or a URL with a radio button selection. See Figure 2-50 on page 66.

**Documentation Detail**

To add an attachment, type a title for the attachment, specify the attachment type, enter the file path, then click OK.

\* Title:

\* Attachment Type: ☒ File ☐ URL

\* Attachment:

\* Required

Figure 2-50 Version 2.5.1 attachment options

In addition, with Version 2.5.1, you can attach documentation at the process level and at the subprocess and procedure levels.

**Note:** When a user retrieves an attachment, the file can be downloaded and saved or opened with a source application or viewer that *must* be installed on the user's workstation. If the user clicks a URL, a new window opens to that particular Web page.

## 2.6.4 Objectives

Underneath the subprocess are the objectives. The following list describes objectives:

- ▶ The objective is the desired status for the subprocess under which it resides.
- ▶ One subprocess can have one or more objectives defined.
- ▶ Underneath each objective, you will see the list of all the risks identified for that subprocess. We create an association to one or more risks we have for that objective.

Figure 2-51 on page 67 shows the Objective Association column with optional check marks. This enables you to choose which risks you want to associate with the objective. The risk/objective association is an n:n relationship, meaning a risk can be associated with multiple objectives.



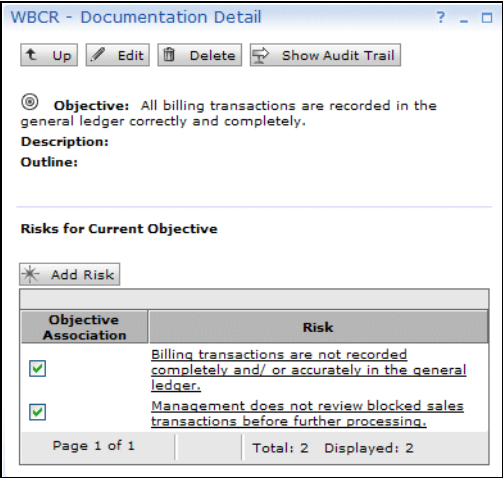


Figure 2-51 Overview of an objective

The objective has three fields and an action for association, as described in Table 2-6.

Table 2-6 Field descriptions for the objective

Field	Value	Description
Objective*	Text	This is the objective name.
Description	Text	An optional field to input a description of the objective.
Outline	Text	A text field to enable you to apply an outline structure to your objectives.
Objective Association	Check box	This is an option in the children portlet when you are looking at an objective in the Detail view. This is where you can associate one or more risks to this specific objective so that the risks of not having an effective control in place are defined.
* This field is required in order to create an objective.		

Adding or importing an objective

You can manually add objectives into the system. Perform the following steps:

- 1. Go to the Documentation tab.
- 2. Select the subprocess under which you want the new objective.

3. Click the **Add Objective** button.
4. Fill in the fields as described in Table 2-6 on page 67.
5. Click **OK** to save your new objective.

After you have created risks underneath your objective, you can select an objective from the tree and observe the risks in the children portlet. Here, you select the check box next to a risk to associate one or more risks with that objective.

If you have imported a process or a subprocess in previous steps, the objectives will automatically show up at this level. It is important to note that when you import from a catalog, the risk/objective association might have already been defined.

A user who has access to the objective in the evaluation stage by default will see all the risks whether they have been associated or not. “Hiding non-associated risks” on page 142, describes how an administrator can limit this list to show only those risks that have been associated with a specific objective.

## 2.6.5 Risks

A risk is displayed as a child object to the objective. However, unlike other objects that generally have a one-to-many relationship, risks can have a many-to-many relationship with objectives. The following list further describes risks:

- Risk can be shared between objectives.
- Under each risk, you will see controls in place to mitigate that risk.

In Figure 2-52 on page 69, the first and second controls are native to this risk, and in this example, the first control is also marked as a key control that is ready for evaluation. The third control is a shared control. Shared controls are native to a different risk and can be associated with any other risk in the application. We discuss shared controls in greater detail in 2.6.7, “Shared controls” on page 77.

WBCR - Documentation Detail

Up Edit Delete Show Audit Trail

**Risk:** Bill of material master data is inaccurate.  
**Description:** risk description  
**Rating:** NONE  
**Outline:**

**Controls for Current Risk**

Add Control Associate Shared Control

For Evaluation	Control	Type	Owner
<input checked="" type="checkbox"/>	Bill of Material master data changes are reviewed regularly using standard reports.	System Configuration	jane jay
<input type="checkbox"/>	Only authorized users have the ability to maintain Bill of Material data.	Management Review	jane jay
<input checked="" type="checkbox"/>	(*) Use project management procedures to ensure proper management of systems development activities	Reconciliation	wps admin

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Figure 2-52 Example of a risk and its controls

Table 2-7 contains the fields and options available for a risk.

Table 2-7 Options available for a risk

Field	Value	Description
Risk*	Text	This is the name of the risk.
Description	Text	An optional field to input a description of the risk.
Rating*	<ul style="list-style-type: none"> <li>► None</li> <li>► High</li> <li>► Medium</li> <li>► Low</li> </ul>	This is the risk rating you want to apply to the risk.
Outline	Text	A text field to enable you to apply an outline structure to your risks.
For Evaluation	Check box	<p>This is an option in the children portlet when you are looking at a risk in the Detail window. This is where you can designate whether controls are key controls that are ready for evaluation.</p> <p><b>Note:</b> This functionality has been enhanced in V2.5.1; see “Enhancement in Version 2.5.1 for risks” on page 70 for details.</p>
* These fields are required in order to create a risk.		

## Adding a risk

You can manually add a risk into the system by perform the following procedure. If you imported a process or a subprocess in the previous steps, the risks might already be predefined. There is not a separate import capability at this level.

Perform the following steps:

1. Go to the Documentation tab.
2. Select the objective under which you want the new risk to be placed.
3. Click the **Add Risk** button.
4. Fill in the fields described in Table 2-7 on page 69.
5. Click **OK** to save your new risk.

If you imported a process or a subprocess in previous steps, the risks will automatically show up at this level. You have to signify whether a control is For Evaluation manually.

## Enhancement in Version 2.5.1 for risks

In Version 2.5.1, the ability to manage the evaluation of key and mitigating controls has been made more straightforward and more accessible to the Workplace for Business Controls and Reporting application administrators.

In prior versions of Workplace for Business Controls and Reporting, there was only one designation for key and mitigating controls, the “For Evaluation” check box that appeared next to the control in the risk object window. In Version 2.5.1, it is possible to designate a control as both For Evaluation and Key Control (All Controls), Only For Evaluation Controls, or Only Key Controls. The designation of For Evaluation is made from the control object window, and the designation of Key Control is made from the risk object window. The combination of the For Evaluation and Key Control settings and global settings govern Workplace for Business Controls and Reporting behavior regarding which controls appear on the Evaluation tab.

As noted previously, to have only key controls appear in the Evaluation tab, a WebSphere Portal setting from the command line was required. In V2.5.1, this setting has been made a global setting that is accessible from the Settings tab, as displayed in Figure 2-53 on page 71.

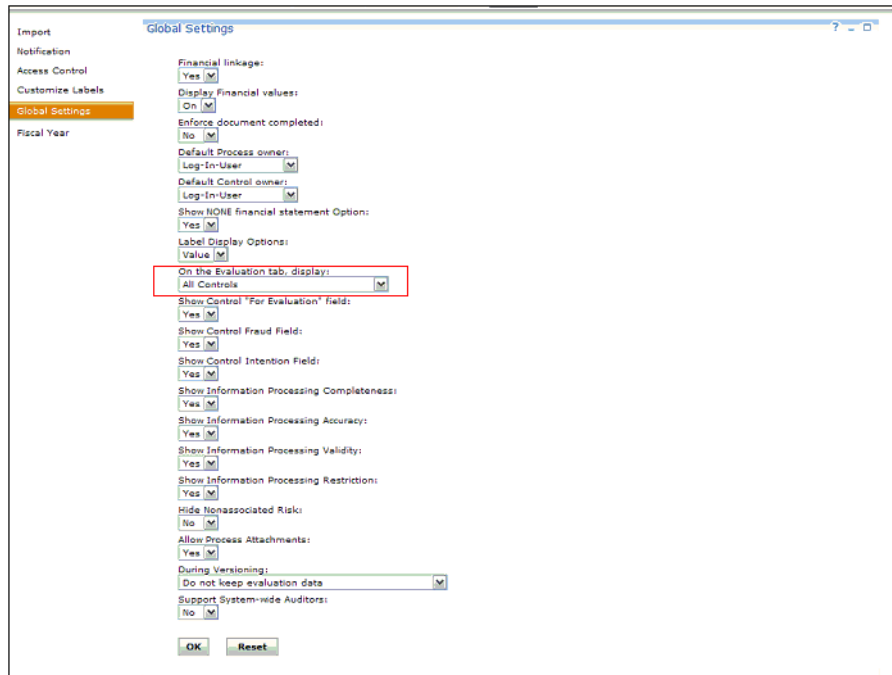


Figure 2-53 Evaluation tab: Global Settings

To designate which controls appear on the Evaluation tab, the Workplace for Business Controls and Reporting Application administrator selects the appropriate value for the “On the Evaluation tab, display” field. Available options are “All Controls,” “Only Key Controls,” or “Only For Evaluation Controls.” Note that if Only For Evaluation Controls is selected, the Show Control For Evaluation field must be set to Yes; otherwise, it will not be possible to designate a control or Evaluation from the user interface. The behavior of Workplace for Business Controls and Reporting based on the selection made is summarized as follows:

- ▶ All Controls: When All Controls is selected, all controls will appear in the Evaluation tab regardless of the Key Control or For Evaluation settings on the control object. In this scenario, the Key Control and For Evaluation settings on the control object do not define any application behavior and are significant for reporting purposes only.
- ▶ Only Key Controls: When Only Key Controls is selected, only controls that have Key Controls selected on the risk object window appear on the Evaluation tab. Controls that are indicated as For Evaluation do not define any application behavior and will be ignored. In this scenario, only the Key Control field governs Workplace for Business Controls and Reporting behavior.

- Only For Evaluation Controls: When Only For Evaluation Controls is selected, only controls that have For Evaluation selected on the control object window will be selected for evaluation. Controls that are indicated as Key Controls do not define any application behavior and will be ignored. In this scenario, only the For Evaluation field governs Workplace for Business Controls and Reporting behavior.

We recommend the settings shown in Table 2-8 and Table 2-9 assuming that the overall expected behavior has key and mitigating controls appear on the Evaluation tab.

Table 2-8 Global settings

Field location	Field name	Field setting
Settings → Global Settings	On the Evaluation Tab Display	Only For Evaluation Controls
Settings → Global Settings	Show Control Evaluation Field	Yes

Table 2-9 Control settings

Control type	Field name	Field setting
Key Control	Key Control (Risk Object)	Yes
Key Control	For Evaluation (Control Object)	Yes
Mitigating Control	Key Control (Risk Object)	No
Mitigating Control	For Evaluation (Control Object)	Yes

Figure 2-54 on page 73 shows an example of the updates to risks in Version 2.5.1.

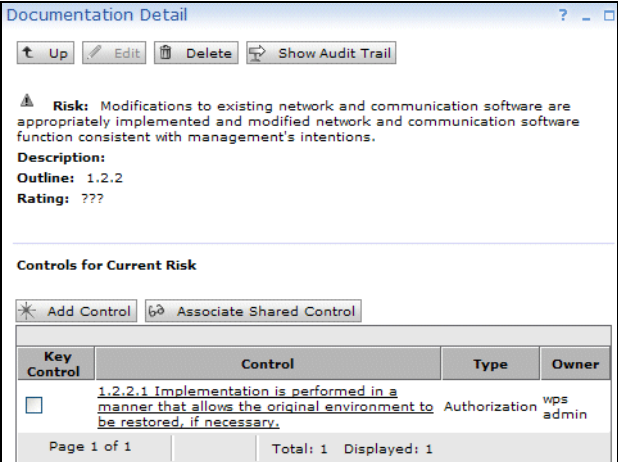


Figure 2-54 Example of updates to risks in V2.5.1

2.6.6 Controls

Controls are in place to manage the risk to which they are related. A control is a child object of a risk. There can be one or more controls for each risk. The exception is shared controls, which have a many-to-many relationship with risks. Figure 2-55 on page 74 shows the controls overview.

WBCR - Documentation Detail

Up Edit Delete Show Audit Trail

**Control:** Billing document types are configured to automatically generate and post the associated accounting document.  
**Description:** control description  
**Shared:** No  
**Rating:** High  
**Component:** Information/Communication  
**Type:** System Configuration  
**Control Execution:** Manual  
**Control Execution Frequency:** Monthly  
**Owner:** John Davis  
**Delegates:** brant cooper; Peter Green  
**Assertions:** Completeness; Existence; Presentation; Accuracy;  
**Outline:**  
**Certification:** Not Certified

**Procedures for Current Control**

\* Add Procedure

Procedure	Owner	Last Test Date
<a href="#">Check XSystem</a>	John Davis	May 14, 2004 12:00:00 AM
<a href="#">Test Procedure Three</a>	John Davis	Jun 2, 2004 12:00:00 AM
<a href="#">Validate Entries in MX System</a>	John Davis	May 24, 2004 12:00:00 AM

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Figure 2-55 Control overview

Controls have the data fields shown in Table 2-10.

Table 2-10 Fields available for controls

Field	Value	Description
Name*	Text	This is the control name.
Description	Text	An optional field to input a description of the control.
Shared	Check box	Selecting this check box marks this control as a shared control and allows this control to be associated with risks in other processes throughout the organization.
Rating*	<ul style="list-style-type: none"> <li>► None</li> <li>► High</li> <li>► Medium</li> <li>► Low</li> </ul>	This is the rating you want to apply to the control.



Field	Value	Description
Component*	<ul style="list-style-type: none"> <li>▶ Control Activities</li> <li>▶ Control Environment</li> <li>▶ Information/Communication</li> <li>▶ Monitoring</li> <li>▶ None</li> <li>▶ Risk Assessment</li> </ul>	These are the COSO components that can be associated with a control. This information is used to drive the COSO Heat Map report.
Type*	<ul style="list-style-type: none"> <li>▶ Authorization</li> <li>▶ Exception/edit report</li> <li>▶ Interface/Conversion</li> <li>▶ Key Performance Indication</li> <li>▶ Management Review</li> <li>▶ None</li> <li>▶ Reconciliation</li> <li>▶ Segregation of Duties</li> <li>▶ System Access</li> <li>▶ System Configuration</li> </ul>	This information is used for categorization of a control for reporting purposes.
Control Execution*	<ul style="list-style-type: none"> <li>▶ Manual</li> <li>▶ Automated</li> </ul>	This enables you to chose the way the control is executed.
Control Execution Description	Text	This is only available if Control Execution is set to <b>Automated</b> . This field is generally populated with window IDs, job names, system names, and so on.
Control Execution Frequency*	<ul style="list-style-type: none"> <li>▶ Daily</li> <li>▶ Monthly</li> <li>▶ Multiple Times Daily</li> <li>▶ Quarterly</li> <li>▶ Semi-annually</li> <li>▶ Weekly</li> <li>▶ Yearly</li> </ul>	<p>Control execution frequency is how often the control is executed or used.</p> <p>For example, a three-way match control is likely used multiple times daily.</p> <p>This field is used for informational purposes only.</p>
Owner*	User name	A selection box that designates who has ownership of the control. There can only be one owner of a control.
Delegates	User or group names	A place to chose one or more users who need delegated access to the control. These users have the same default access as the owner.

Field	Value	Description
Assertions	<ul style="list-style-type: none"> <li>▶ Completeness</li> <li>▶ Existence</li> <li>▶ Presentation</li> <li>▶ Valuation</li> <li>▶ Ownership</li> <li>▶ Accuracy</li> </ul>	You can select one or more assertions. These are financial statement assertions that are based on COSO and audit standards.
Outline	Text	A text field to enable you to apply an outline structure to your controls.
* These fields are required in order to create a control.		

Figure 2-56 shows an example of a control in add or edit mode.

WBCR - Documentation Detail

Edit one or more of these fields, then click OK.

\* Name: Billing document types are configured to automatically generate and p

Description: control description

☐ Shared

\* Rating: High

\* Component: Information/Communication

\* Type: System Configuration

\* Control Execution: Manual

\* Control Execution Frequency: Monthly

\* Owner: John Davis

Delegates: brant cooper ; Peter Green

Assertions:

☒ Completeness ☐ Valuation

☒ Existence ☐ Ownership

☒ Presentation ☒ Accuracy

Outline:

\* Required

OK Cancel

Figure 2-56 A control in add or edit mode

## 2.6.7 Shared controls

To understand shared controls, it is important to distinguish them from common controls. A common control is a control that can exist in multiple locations, but because it is executed manually, each occurrence is considered to be unique for testing purposes.

Typically, a *shared control* is considered to be an infrastructure type of control and will likely be automated. Shared controls give you the ability to document, test, and evaluate a control once, but reference it in multiple processes or business units.

**Example:** IT access controls are going to impact multiple systems. The controls will either test to be effective or ineffective, but they are going to be tested only once within IT. As long as those controls are working, they are going to be assumed to be working throughout all of those applications and all of those processes.

If you had a risk in each one of your processes that outlined that unauthorized personnel could gain access to your system, you might want to reference the shared IT access control and use it in each one of those processes exposed to that risk.

When it was tested from an IT standpoint, all of the documentation and results will be inherited everywhere it is shared. Therefore, if it was deemed effective and it was tested once, everybody that was using it would get an effective control, and vice versa: If it was ineffective, everybody would get an ineffective control.

Shared controls reduce the testing effort by reducing the total number of controls that must be tested. Without shared control capabilities, redundant controls must be tested on each occurrence.

### Adding a control

You can manually add a control into the system by performing the following procedure. If you imported a process or a subprocess in the previous steps, the controls will automatically be listed here. There is not a separate import capability at this level. To add a control, perform the following steps:

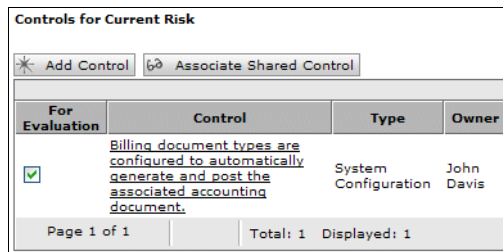
1. Go to the Documentation tab.
2. Select the risk under which you want the new control to be placed.
3. Click the **Add Control** button.
4. Fill in the fields displayed in Figure 2-56 on page 76 and described in Table 2-10 on page 74.

5. Click **OK** to save your new control.

## Referencing a shared control

To reference a shared control, perform the following steps:

1. Go to the Documentation tab.
2. Select the risk under which you want the shared control to be placed.
3. Click the **Associate Shared Control** button, as shown in Figure 2-57. This shows the list of controls that have been declared as shared controls.

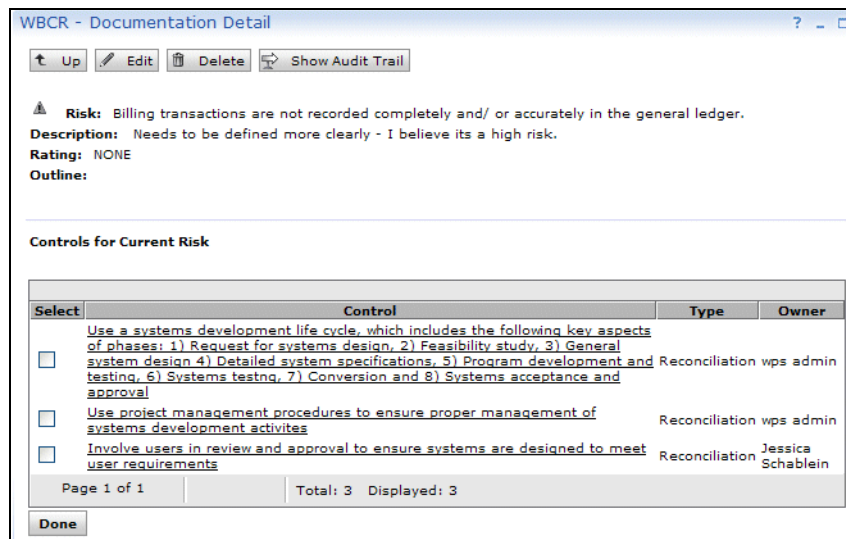


For Evaluation	Control	Type	Owner
<input checked="" type="checkbox"/>	Billing document types are configured to automatically generate and post the associated accounting document.	System Configuration	John Davis

Page 1 of 1      Total: 1    Displayed: 1

Figure 2-57 Associate Shared Control button

4. Select from the list the controls you want to associate by selecting the appropriate check box, as shown in Figure 2-58.



WBCR - Documentation Detail

Up Edit Delete Show Audit Trail

**Risk:** Billing transactions are not recorded completely and/ or accurately in the general ledger.  
**Description:** Needs to be defined more clearly - I believe its a high risk.  
**Rating:** NONE  
**Outline:**

**Controls for Current Risk**

Select	Control	Type	Owner
<input type="checkbox"/>	Use a systems development life cycle, which includes the following key aspects of phases: 1) Request for systems design, 2) Feasibility study, 3) General system design 4) Detailed system specifications, 5) Program development and testing, 6) Systems testing, 7) Conversion and 8) Systems acceptance and approval	Reconciliation wps admin	Jessica Schablein
<input type="checkbox"/>	Use project management procedures to ensure proper management of systems development activities	Reconciliation wps admin	Jessica Schablein
<input type="checkbox"/>	Involve users in review and approval to ensure systems are designed to meet user requirements	Reconciliation wps admin	Jessica Schablein

Page 1 of 1      Total: 3    Displayed: 3

Done

Figure 2-58 List of shared controls from which to choose

5. Click **Done** to save the association.

**Note:** The shared control can only be edited, tested, and evaluated by the owner and delegates defined for that control.

**Enhancements in Version 2.5.1 for controls**

Version 2.5.1 contains a few more options at the control level to stay current with the COSO recommendations as well as provide better functionality to users.

Figure 2-59 and Table 2-11 on page 80 highlight the changes.

Documentation Detail

?

-

□

🗨

Edit one or more of these fields, then click OK.

\* Control:

Ed-cont1

Description:

Ed-cont1

☐ Shared ☐ For Evaluation

Fraud:

None

Outline:

\* Rating:

None

\* Component:

Control Activities

\* Type:

Authorization

\* Control Intention:

None

\* Control Execution:

Automated

Control Execution Description:

\* Control Execution Frequency:

Daily

\* Owner: [wps admin , edit owner...](#)

Delegates: [edit delegates...](#)

Assertions:

☐ Completeness ☐ Valuation

☐ Existence ☐ Ownership

☐ Presentation ☐ Accuracy

Information processing:

☐ Completeness ☐ Validity

☐ Accuracy ☐ Restriction

\* Required

OK

Cancel

Figure 2-59 Fields to fill in for the control in V2.5.1

Table 2-11 New fields available in V2.5.1

Field	Value	Description
For Evaluation	Check box	This determines whether the control is to be evaluated or not.
Fraud	<ul style="list-style-type: none"> <li>▶ No</li> <li>▶ Yes</li> <li>▶ None</li> </ul>	Used to indicate if a control is designed to prevent or detect fraudulent activities.
Control Intention*	<ul style="list-style-type: none"> <li>▶ Detective</li> <li>▶ Preventative</li> <li>▶ None</li> </ul>	<p>Detective controls are designed to detect and notify you when there are errors and irregularities that have occurred so that you can assure their prompt correction.</p> <p>Preventative controls are designed to keep errors or irregularities from occurring in the first place.</p>
* This is a required field.		

The administrator has the ability to hide these new fields until the organization decides to use them. See “Additional global settings in IBM Workplace for Business Controls and Reporting V2.5.1” on page 145 for more information.

## 2.6.8 Procedures

The last object in the documentation phase is the procedure, more commonly referred to as a *test procedure*. Procedures represent the testing steps that are used to evaluate the effectiveness of controls. They should not be confused with the business process procedures that represent how the process is executed.

Procedures are child objects of controls, and there is a one-to-many relationship between controls and procedures.

The form structure in IBM Workplace for Business Controls and Reporting is capable of supporting multiple types of procedures. Some of the more common procedure types include:

- ▶ Sampling
- ▶ Walk-through or Observation
- ▶ Inquiry
- ▶ Inspection of reports or other documentation

Information regarding the procedure can be recorded in the description field (up to 2560 characters, approximately three-fourths of a 8.5X11 page) or as file or URL attachments.

Procedures are unique in IBM Workplace for Business Controls and Reporting objects; generally, objects can only be created and edited in one tab. However, procedures can be created or edited in both the Documentation and the Evaluation tabs.

Finally, as mentioned in 2.1, “Software methodology overview” on page 12, this is the other object within the application where you can add attachments or point to URLs. We describe how to do this in 2.6.3, “Attachments and URLs” on page 64 for your reference. Figure 2-60 shows an overview of a procedure.

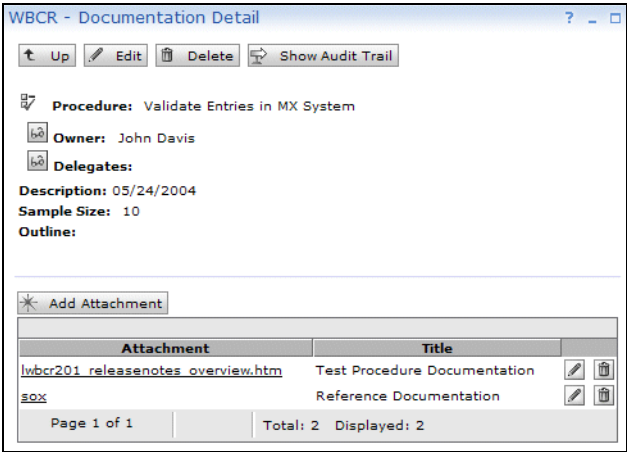


Figure 2-60 Procedure overview

Table 2-12 provides the field descriptions for a procedure.

Table 2-12 Field descriptions for a procedure

Field	Value	Description
Procedure*	Text	This field is where you name the procedure.
Description	Text	An optional field to input a description of the procedure.
Owner*	User name	A selection box that designates who has ownership of the procedure. There can only be one owner of a procedure.
Delegates	User or group names	You can chose one or more users who need delegated access to the procedure. These users have the same default access as the owner.

Field	Value	Description
Sample Size	Numeric	If the procedure is based on sampling, a numeric value signifying the amount of testing instances you need to complete for that procedure.
Outline	Text	A text field to enable you to apply an outline structure to your procedures.
* These fields are required in order to create a procedure.		

## Adding a procedure

You can manually add a procedure into the system by performing the following steps. If you imported a process or a subprocess in the previous steps, the procedures have been predefined. New procedures, however, can be added either during documentation or evaluation. To add a procedure, perform the following steps:

1. Go to the Documentation tab.
2. Select the control under which you want the new procedure to be placed.
3. Click the **Add Procedure** button.
4. Fill in the fields described in Table 2-12 on page 81.
5. Click **OK** to save your new procedure.

Figure 2-61 shows the procedure fields.

The screenshot shows a dialog box titled "WBCR - Documentation Detail". It contains the following fields and controls:

- A message: "Edit one or more of these fields, then click OK."
- A red asterisk followed by the text "\* Procedure:".
- A text field containing "Validate Entries in MX System".
- A label "Description:".
- A text field containing "05/24/2004".
- A red asterisk followed by the text "\* Owner: John Davis".
- A red asterisk followed by the text "\* Delegates:".
- A label "Sample Size:".
- A text field containing "10".
- A label "Outline:".
- An empty text field.
- A red asterisk followed by the text "\* Required".
- Buttons for "OK" and "Cancel".

Figure 2-61 Fields to fill in when you create a procedure



After the documentation for an entire process is complete, we can now go back to the process and set the Documentation Complete field from No to **Yes**. This means that we are ready for the Evaluation phase.

## 2.7 Evaluating the test procedure and controls

When the documentation is complete (this might or might not be enforced depending on the global settings), users can enter the evaluation phase of the internal control process. This is optionally enforced by the portlets based on an administrative setting to prevent a user from performing evaluation on objects without the documentation complete.

Evaluation operates on controls, procedures, and test instances of procedures (test instances are referred to as “samples” within IBM Workplace for Business Controls and Reporting). A control has four different evaluation stages with an optional fifth:

1. Execution of test instances of a procedure: Within Workplace for Business Controls and Reporting, test instances are referred to as samples. However, a test instance can represent multiple procedure or test types. Some of the more common types are samples, walk-through, and interview. When the test instance is completed, the results are entered in Workplace for Business Controls and Reporting as a “sample” that is a child object of a procedure. A procedure can have one or more samples. The results are entered as either “Passed” or “Failed.” If a test instance (sample) is recorded as failed, a workflow is initiated that will direct the user to either invalidate the sample if the sample is erroneous, or create a remediation plan that will record the root cause of the failure, the remediation plan to correct the root cause, and a “remediation date” that will indicate when the remediation plan is expected to be complete and a retest is appropriate. Valid values for a sample are invalid, passed, failed, and remediated.
2. Evaluation of a procedure: Consistent with the “control evaluation frequency,” the procedure must be evaluated. Note that the procedure evaluation frequency can be more frequent than the control evaluation frequency, but cannot be more; for example, a control that is evaluated annually can be evaluated based on procedures that are evaluated quarterly. The procedure evaluation needs to indicate that the procedure supports one of three conclusions:
  - The procedure supports a conclusion that the control is effective.
  - The procedure supports a conclusion that the control is ineffective.
  - The procedure is inconclusive.

3. Control evaluation: When the user opens a control object in the evaluation phase, the control data attributes are displayed along with the procedure results. The procedure results include the procedure name, procedure owner, procedure evaluation date, and procedure conclusion. The control evaluator can evaluate the control based on the summary procedure information or can “drill down” into a procedure if they want more detailed information about a procedure. The control is rated as effective or ineffective. The control evaluation frequency, next evaluation date, and the rationale for the next evaluation date are set.
4. Control observation: The control observer (can be from the business unit or internal audit based on the maturity of the organization) makes the determination of the overall impact of a control that is rated ineffective in control evaluation. In control observation, the control observer rates the impact of a control as N/A, Deficiency, Significant Deficiency, or Material Weakness (note that currently Workplace for Business Controls and Reporting incorrectly refers to a material Weakness as a “Material Deficiency”). N/A is applicable for effective controls where the observer wants to record observations such as a recommendation for automation or an ineffective control that is appropriately mitigated. The control observation also includes text fields to record, Deficiency, Implication, Mitigation, and Recommendation, and whether or not the control is mitigated. Information recorded on the control observation is reported in the Observations and Recommendations report.
5. Auditor observation: The Auditor Observation window is identical to the Control Observation window; it is intended to provide a place for internal auditors to record observations. There is no standard reporting of information entered in the Auditor Observation window.

A few important notes about evaluations:

- ▶ Additional procedures can be added to the control during this stage.
- ▶ Evaluation contents can be edited.
- ▶ All of the evaluation fields set up during the documentation stage can be edited.

Attachments created during the documentation stage are available during evaluation. Additional attachments can be added during the evaluation stage. Attachments created during the documentation stage are usually related to how the evaluation should be performed, and attachments made during the evaluation stage are related to the performance of a specific evaluation, for example:

- ▶ Interview or observation notes
- ▶ Sample worksheet

The key hierarchy to keep in mind is that controls are evaluated using procedures (testing procedures) and specific executions of a testing procedure are represented by samples.

**Tip:** Remediation planning functionality for a *sample* evaluation can be used regardless of the evaluation type.

Figure 2-62 shows that the Evaluation tab has the same layout as the other tabs in which we have been working up to this point. Who you are will determine what you are able to see within the application. Users will more than likely use the My Procedures or My Controls list from the portlet to pull up the relevant objects they need in order to do their evaluations.

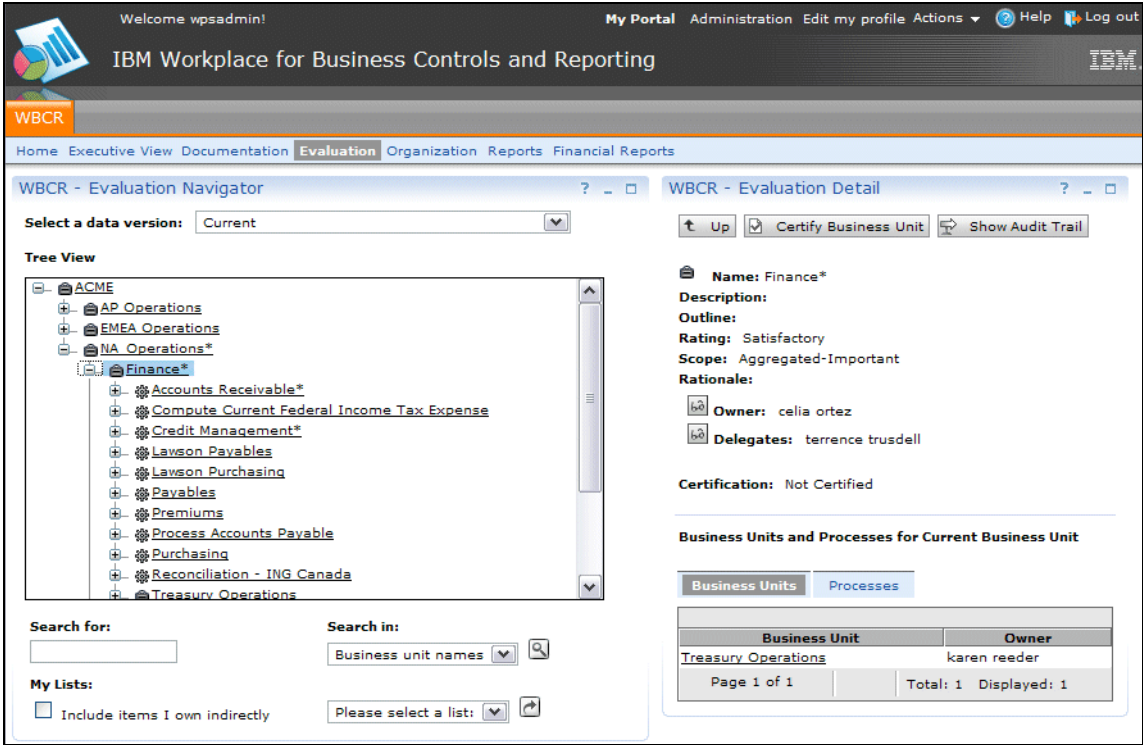


Figure 2-62 Evaluation tab

**Evaluation steps overview**

There are several levels of evaluation available within the application. You have the option of using whatever evaluations you deem necessary to support your

process. In support of the bottom-up approach, we describe the following available evaluation options:

- ▶ Sampling and remediation
- ▶ Test procedure evaluation
- ▶ Control evaluation

## 2.7.1 Sampling

Specific executions of a testing procedure are represented by samples. Samples are a great place to record specific testing executions of the *testing instances* (referred to as samples in IBM Workplace for Business Controls and Reporting). Users record the results of the testing instances and record if these passed or failed. Users can also create remediation and gap plans at this level if a test failed. Perform the following steps:

1. Log in to IBM Workplace for Business Controls and Reporting and go to the Evaluation tab.
2. Select **My Procedures** from the My Lists portlet.
3. From that set of results, select the procedure on which you want to execute and record the results of your test. In this example, we choose **Cross reference and check entries**.
4. Go to the Samples tab in the children portlet and you will note immediately if samples have been executed in the past, what the status was, who did it, and what is the remediation was. Figure 2-63 shows an example.

Samples	Status	Exec Time	Exec Who	Remediation
<a href="#">sample name</a>	Remediated	Mar 11, 2005 11:25:50 AM	bernie bee	
<a href="#">sample</a>	Passed	Mar 11, 2005 11:25:50 AM	bernie bee	

Page 1 of 1      Total: 2    Displayed: 2

Figure 2-63 Sample tabs with history and status of past sample executions

5. Click the **Add Sample** button and fill in the fields shown in Table 2-13 on page 87 to record a testing instance.

Table 2-13 Fields available from the Add Sample function

Field	Value	Description
Sample*	Text	Name of the sample.
Description*	Text	This is a text field where you can describe the sample.
Comment	Text	Another text field where you can store additional comments regarding the test.
Test Association Date*	Date	This field references the date of the data set you used for your testing. For example, if we execute testing on July 15 for June 30 data, this is where you would specify June 30 as the date.
Status*	<div>▶ Passed</div> <div>▶ Failed</div>	This is where you indicate whether the testing passed or failed.
* These fields are required in order to create a sample.		

For this example, let us say that the testing failed and we selected that status on our sample evaluation. If we look at the view, we see the most recent status of the evaluation and determine whether we are ready for remediating the sample, as shown in Figure 2-64.

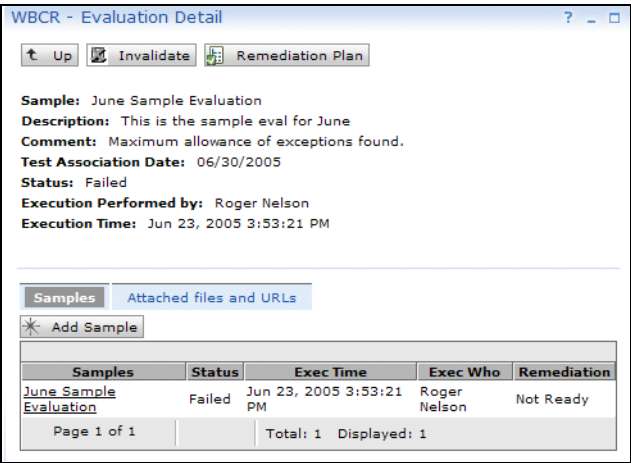


Figure 2-64 Failed sample

The user typically has some work to do when a test fails and possibly needs to do some work outside of the system. After that work is complete, the user logs in to the system and selects the sample to begin a remediation plan.

6. Select the sample, in this case, **June Sample Evaluation**.

Note that there are three actions from which a user can select:

- ▶ Up: Takes the user to the procedure detail.
- ▶ Invalidate: We can invalidate the evaluation that we executed. If you select this option, you can add some comments, and this will be noted in the view shown in Figure 2-64 on page 87.
- ▶ Remediation Plan: Create a remediation plan for the failed evaluation. For this example, we select this option.

## 2.7.2 Remediation

When a sample is marked as failed, a remediation workflow is initiated. In the remediation workflow, the procedure evaluator is first given the option of invalidating the sample or beginning a remediation plan.

If the sample is invalidated, the procedure evaluator name and the date and time are stamped on the sample and the status is recorded as invalidated.

If the procedure evaluator decides to initiate a remediation plan, the evaluator clicks the **Remediation Plan** button shown in Figure 2-64 on page 87. This displays the remediation plan window shown in Figure 2-65 on page 89. The procedure evaluator records the Root Cause or issue, Remediation Plan, and the Remediation Date. These are all required fields.

At this point, the Ready for Remediation field will generally be left at **No**. The exception to this will be a situation where the solution is straightforward and can be implemented immediately. In most cases, remediation will take some time and will be delayed over a period of weeks or even months.

After the remediation plan is completed the status of the Ready for Remediation is changed to **Yes**. This indicates that the remediation is complete and the procedure is ready for retesting. After the status is changed, a new button, "Remediate," appears, as shown in Figure 2-66 on page 90.

When you click the **Remediate** button, a window opens to allow the procedure evaluator to record the retest results. The retest window looks like the original sample window where the original test results were recorded. However, the retest window will contain a reference to the original test. After the retest results are recorded, the sample is updated. Assuming that the retest is recorded as Passed, the status of the original sample will be updated from Failed to Remediated.

Valid values for sample test results are Passed, Failed, Invalidated, and Remediated.

To initiate a remediation plan, perform the following steps:

1. Click the **Remediation Plan** button. Fill out the form, and click **OK** when you are done. Figure 2-65 shows the form.

The screenshot shows a window titled "WBCR - Evaluation Detail". Inside, there is a help icon and text: "To create a remediation plan for the failed sample, complete the fields below, then click OK." Below this, it says "Sample: June Sample Evaluation", "Description: This is the sample eval for June", and "Status: Failed". There are three required fields marked with a red asterisk: "Root Cause:" (a large text area), "Remediation Plan:" (a large text area), and "Remediation Date:" (a date picker). Below these is a "Ready for Remediation:" dropdown menu currently set to "No". At the bottom, there is a red asterisk and the word "Required", and two buttons: "OK" and "Cancel".

Figure 2-65 Remediation plan

Table 2-14 provides descriptions of the fields.

Table 2-14 Field descriptions for a remediation plan

Field	Value	Description
Root Cause*	Text	A place to document the root cause of the failure.
Remediation Plan*	Text	A field to document the plan in place to remediate the failure.
Remediation Date*	Date	Date when this sample was remediated.
Ready for Remediation	<ul style="list-style-type: none"><li>► No</li><li>► Yes</li></ul>	Whether or not the sample is ready for remediation. Selecting <b>No</b> enables us to continue work on the remediation plan. After the issue is remediated, selecting <b>Yes</b> saves the field values and displays the <b>Remediate</b> button.
* These fields are required in order to create a remediation plan.		

All this data we filled out and saved is captured on the sample evaluation detail. Figure 2-66 shows an example.

WBCR - Evaluation Detail

Up

Remediate

**Sample:** June Sample Evaluation

**Description:** This is the sample eval for June

**Comment:** Maximum allowance of exceptions found.

**Test Association Date:** 06/30/2005

**Status:** Failed

**Execution Performed by:** Roger Nelson

**Execution Time:** Jun 23, 2005 3:53:21 PM

**Root Cause:** This is the root cause

**Remediation Plan:** the plan goes here

**Remediation Date:** 06/24/2005

**Ready for Remediation:** Yes

Samples

Attached files and URLs

Add Sample

Samples	Status	Exec Time	Exec Who	Remediation
June Sample Evaluation	Failed	Jun 23, 2005 4:22:29 PM	Roger Nelson	Ready for Remediation

Page 1 of 1

Total: 1  
Displayed: 1

Figure 2-66 Remediation plan documented on the sample

2. Click the **Remediate** button, as shown in Figure 2-66, and to fill out the fields to test a new set of sampling data. See Figure 2-67 on page 91.
- Remediation enables us to record the test with the remediated sample. You will notice that this window provides the same fields as the Add Sample button.



WBCR - Evaluation Detail ?

To add a new sample, complete these fields, then click OK.  
**Remediating Sample:** June Sample Evaluation

\* Name:

\* Description:

Comment:

\* Test Association Date:

Status:

\* Required

Figure 2-67 Remediating a sample

- This time when we ran the test, it passed and the sample has now been remediated and passed. This is noted at the procedure level with details about the status, who did it, and when, as shown in Figure 2-68.

WBCR - Evaluation Detail ? \_ □

**Procedure:** Validate dates in both shipping and billed columns

**Owner:** Roger Nelson

**Delegates:**

**Description:**

**Sample Size:** 6

**Outline:**

Samples	Status	Exec Time	Exec Who	Remediation
<a href="#">June Sample Evaluation</a>	Remediated	Jun 23, 2005 8:54:53 PM	Roger Nelson	
<a href="#">Remediating June Sample Evaluation</a>	Passed	Jun 23, 2005 8:54:53 PM	Roger Nelson	

Page 1 of 1 Total: 2 Displayed: 2

✓ The item was updated successfully.

Figure 2-68 Remediation details

After the testing has been executed and the samples have been remediated, the next step in the process is to evaluate the procedures.

### 2.7.3 Procedure evaluation

The next step in the evaluation process is to have the procedure owners evaluate test procedures. The procedure owner's responsibility is to run the test and report in the tool the results from that test. Perform the following steps:

1. Log in to IBM Workplace for Business Controls and Reporting and go to the Evaluation tab.
2. Select **My Procedures** from the My Lists portlet.

In the results of the My List portlet, you will notice that it lists (see Figure 2-69 on page 93):

- Procedure name
- Owner of the procedure
- Last test date
- Comments that were made on the last evaluation

IBM Workplace for Business Controls and Reporting

WBCR

Home Executive View Documentation **Evaluation** Organization Reports Financial Reports

WBCR - Evaluation Navigator

Select a data version: Current

Tree View

- ACME
  - EMEA Operations
    - EMEA Finance
      - Process Accounts Receivable
        - Record Billing
          - Accurately record invoices for all authorized shipments a
            - Improper cutoff of shipments at the end of a period
              - Reconcile goods shipped to goods billed
                - Cross reference and check entries**

Search for:

Search in: Business unit names

My Lists:

☐ Include items I own indirectly

My Procedures

Procedure	Owner	Last Test Date	Comment
<a href="#">Check XSystem</a>	Roger Nelson	Jun 21, 2005 1:47:29 PM	Procedure still valid
<a href="#">Cross reference and check entries</a>	Roger Nelson	Not Tested	Empty
<a href="#">Validate Entries in MX System</a>	Roger Nelson	Jun 21, 2005 1:49:05 PM	3 exceptions found, test ok
<a href="#">Validate dates in both shipping and billed columns</a>	Roger Nelson	Not Tested	Empty

Page 1 of 1 Total: 4 Displayed: 4

WBCR - Evaluation Detail

Up Evaluate Edit Delete Show Audit Trail

Procedure: Cross reference and check entries

Owner: Roger Nelson

Delegates:

Description: verify the entries match every month

Sample Size: 10

Outline:

Samples Attached files and URLs

Add Attachment

Attachment	Title
<a href="#">Test Instructions.txt</a>	Please use this to record results

Page 1 of 1 Total: 1 Displayed: 1

Figure 2-69 List of procedures on the Evaluation tab

3. Select the Procedure you want to evaluate. In this example, we select **Cross reference and check entries** from the list. The details and actions available for us to execute are now displayed in the Detail window. See Figure 2-70 on page 94.

WBCR - Evaluation Detail

Up Evaluate Edit Delete Show Audit Trail

**Procedure:** Cross reference and check entries

**Owner:** Roger Nelson

**Delegates:**

**Description:** verify the entries match every month

**Sample Size:** 10

**Outline:**

Samples Attached files and URLs

Add Attachment

Attachment	Title
Test Instructions.txt	Please use this to record results

Page 1 of 1 Total: 1 Displayed: 1

Figure 2-70 Procedure Detail

- At this point, you can read any reference material attached to the procedure on the Attached files and URLs tab and review and verify the testing results on the Samples tab.
- You can now click the **Evaluate** button and fill in the comments field with data related to the test results and click **OK**, as shown in Figure 2-71.

WBCR - Evaluation Detail

Edit one or more of these fields, then click OK.

\* Procedure:

Cross reference and check entries

\* Comment:

\* Required

OK Cancel

Figure 2-71 Procedure Evaluation

You will notice in Figure 2-72 on page 95 that in the My List portlet the Last Test Date and Comment columns are updated based on the evaluation we just completed. In addition, the Comment and the Actual Evaluation Date is now listed in the Detail window for that procedure.

**Note:** You might have to refresh your view to see the updated information.



WBCR - Evaluation Detail

Up Certify Control Show Audit Trail

Control Evaluation Control Observation Auditor Observation

**Control:** Reconcile goods shipped to goods billed

**Description:**

**Shared:** No

**Rating:** NONE

**Component:** Control Environment

**Type:** Authorization

**Control Execution:** Automated

**Control Execution Description:**

**Control Execution Frequency:** Daily

**Owner:** bernie bee

**Delegates:**

**Assertions:** Existence; Ownership;

**Outline:**

**Certification:** Not Certified

**Procedures for Current Control**

Add Procedure

Procedure	Owner	Last Test Date	Comment
<a href="#">Cross reference and check entries</a>	Roger Nelson	Jun 23, 2005 2:29:46 PM	Testing was found to be valid
<a href="#">Validate dates in both shipping and billed columns</a>	Roger Nelson	Jun 23, 2005 9:04:26 PM	This procedure failed.

Page 1 of 1 Total: 2 Displayed: 2

Figure 2-73 Control ready for evaluation

Perform the following steps:

1. Log in as a control owner. In this case, Bernie Bee pulls up the controls for which he is responsible, and the test procedures are listed below with their status.

In Figure 2-73, notice all the actions the control owner has available at this level:

- Up: Clicking this button brings us to the risk.
- Certify Control: After the procedures have been evaluated, the control can be certified using this button.
- Show Audit Trail: This shows a full audit trail for this control.
- Control Evaluation: This is where we determine whether a control has been deemed effective or not.
- Control Observation: You can make observations and recommendations about a control here.
- Auditor Observation: The same form as a control observation, but it is generally used by auditors.

For example, an auditor might have read access to the entire system and this is the only place they can record information in the system.

**Note:** It is important to note that there is separate access control capabilities for each of the following items: Certify Control, Control Evaluation, Controls Observation, and Auditor Observation.

This enables you to give the appropriate people within your organization appropriate access to each of these functions individually.

- 2. Click **Control Evaluation** to open a form, as shown in Figure 2-74, where the information listed in Table 2-15 on page 98 can be entered. Click **OK** to save your information.

The screenshot shows a web browser window titled "WBCR - Evaluation Detail". Inside the window, there is a "Show Audit Trail" button at the top. Below it, a control description is shown: "Control: Reconcile goods shipped to goods billed". A speech bubble icon indicates that fields can be edited. The form contains several input fields: "Evaluation:" with a dropdown menu set to "Ineffective"; "Frequency:" with a dropdown menu set to "Monthly"; "\* Next Evaluation Date:" with a date field showing "08/31/200" and a calendar icon; "\*Rationale:" with a large text area containing the word "rationale"; and "Evaluation Complete:" with a dropdown menu set to "No". At the bottom, there is a red "\*Required" label and "OK" and "Cancel" buttons.

Figure 2-74 Form presented by clicking Control Evaluation


Table 2-15 Control evaluation fields


Field	Value	Description
Evaluation	<ul style="list-style-type: none"> <li>► Ineffective</li> <li>► Effective</li> <li>► None</li> </ul>	This is where you make your judgement call on control effectiveness based on the test procedure evaluations.
Frequency	<ul style="list-style-type: none"> <li>► Annually</li> <li>► Daily</li> <li>► Monthly</li> <li>► Multiple-Times Daily</li> <li>► Quarterly</li> <li>► Semi-Annually</li> <li>► Weekly</li> </ul>	This is the control evaluation frequency for your control.
Next Evaluation Date*	Date	This field is where you determine the next date for the evaluation of this particular control. Setting this due date might trigger mail alerts to inform control and procedure owners about the next evaluation.
Rationale*	Text	This field enables you to document the rationale behind your selections.
Evaluation Complete	<ul style="list-style-type: none"> <li>► Yes</li> <li>► No</li> </ul>	This is the key field that signifies whether the evaluation is complete. Selecting <b>Yes</b> sends data to the Reports and Executive View.
* These fields are required.		


After the control evaluation has been completed, the last step in the process is that someone, generally independent of the control testing, reviews the control evaluation and makes a determination of the impact of the control effectiveness result with a broad understanding of the subprocess and the relationship between controls. This is done by clicking the **Control Observation** button.

The form in Figure 2-75 on page 99 opens. You can document the findings in the fields described in Table 2-16 on page 99.



 **Show Audit Trail**

 **Control:** Reconcile goods shipped to goods billed

 To create an observation for this control, complete these fields, then click OK.

**Impacts**


**Deficiency**

**Implication**

**Recommendation**

**Mitigating control**

**Mitigated(Y/N)?**

**\* Follow-up Date**  
 

**\*Required**

Figure 2-75 Control observation form

Table 2-16 Available fields for the control observation

Field	Value	Description
Impacts	<ul style="list-style-type: none"><li>▶ Deficiency</li><li>▶ Material Deficiency</li><li>▶ Significant Deficiency</li><li>▶ N/A</li></ul>	This is where you determine the impact of an ineffective control against your financials. This drives information to the Control Status report in the Executive View.
Deficiency	Text	This is where you can write detailed documentation about the deficiency of the control.
Implication	Text	Here, you document the implication of the control on your business.

Field	Value	Description
Recommendation	Text	This is where you document any recommendation about mitigating, replacing, or improving the control.
Mitigating control	Text	Here, you document the mitigating control.
Mitigated (Y/N)?	<ul style="list-style-type: none"> <li>► Yes</li> <li>► No</li> </ul>	Use this selection to flag whether or not this control has been mitigated. This drives information in the Overall Control Effectiveness report in the Executive View.
Follow-up Date	Date	Finally, you select the next follow-up date to review this mitigation plan. Setting this date drives the Controls with Follow-up component of the Executive View.

After these are recorded, they are stored in the database and a report called Observations and Recommendations can be generated from the Reports tab. For more information about reports, see 2.9, “Reporting and monitoring” on page 103.

Control observations can also be used for effective controls (not just ineffective). For effective controls, the control observation can be used to record observations and recommendations for improvements.

## 2.8 Certification functionality

Section 302 requires certification of quarterly and annual financial statements as part of U.S. Securities and Exchange Commission (SEC) filings. In addition, external auditors might require accuracy attestation on key customer, financial, or vendor accounts. IBM Workplace for Business Controls and Reporting implements certification from the bottom up by enabling you to certify controls, processes, business units, and your parent organization.

After the procedures and a control have been evaluated, the controls can be certified by clicking the **Certify Control** button. When you select that button, a pop-up window shows a certification warning, as shown in Figure 2-76 on page 101.

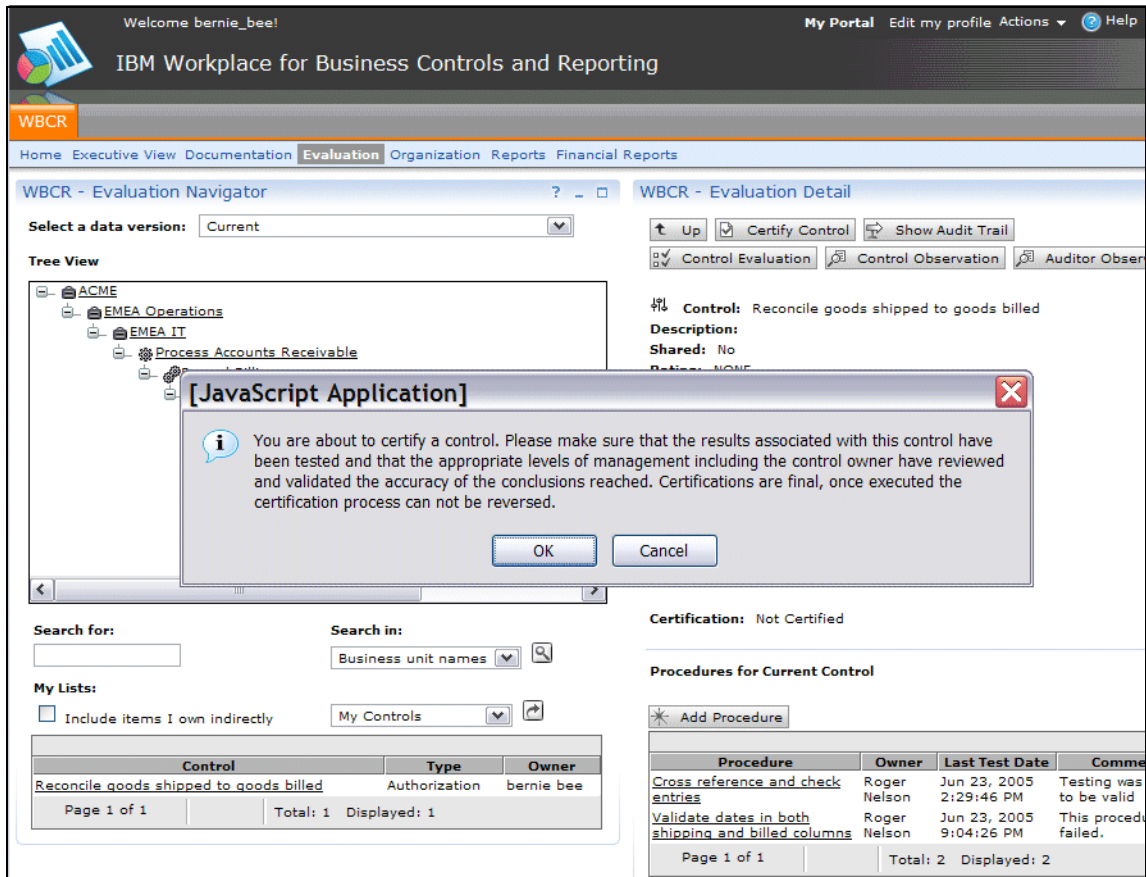


Figure 2-76 Certification message

Click **OK** and a certification comments box opens, as shown in Figure 2-77 on page 102. Here, you can document anything you need to about the control certification. After you complete the certification, that information is stored on the control details, as shown in Figure 2-78 on page 102.

WBCR - Evaluation Detail

Edit one or more of these fields, then click OK.

Certifier: bernie\_bee

Certification Date: 6/23/05

\*Certification comments:

\*Required

OK Cancel

Figure 2-77 Certification comments

WBCR - Evaluation Detail

Up Certify Control Show Audit Trail

Control Evaluation Control Observation Auditor Observation

**Control:** Reconcile goods shipped to goods billed

**Description:**

**Shared:** No

**Rating:** NONE

**Component:** Control Environment

**Type:** Authorization

**Control Execution:** Automated

**Control Execution Description:**

**Control Execution Frequency:** Daily

**Owner:** bernie\_bee

**Delegates:**

**Assertions:** Existence; Ownership;

**Outline:**

**Certification:** Last certified on 6/23/05

**Certifier:** bernie\_bee

**Certification comments:** This has been certified based on the evaluation status.

Figure 2-78 Certification status

This procedure can be repeated at the following levels until you reach the top level organizational unit: control, process, business unit, top-level business unit.

**Note:** There is not currently a report that provides you a consolidated view of certification. You either have to create a custom report to view the status of the certification, or manually view the information per object in the system. A sample Certification report is available as an additional material with this Redpaper to give you an impression of what such a report might look like. See Appendix B, “Adding custom reports” on page 201 for information about how to make this sample available.

## 2.9 Reporting and monitoring

Reporting occurs throughout the process and not just at the end. IBM Workplace for Business Controls and Reporting supports reporting at each of the three previously discussed steps in the software methodology: scoping, documentation, and evaluation.

IBM Workplace for Business Controls and Reporting supports reporting through two methods, which we describe in detail in this section:

- ▶ **Executive Views:** A graphically based scorecard that shows the overall status of a control framework. It is geared toward business unit owners.
- ▶ **Standard reports:** Predesigned, text-based reports about various objects within the system. These reports are aimed toward the other user roles.

IBM Workplace for Business Controls and Reporting is supported by the following third-party reporting vendors and ships with five limited licenses of Crystal Reports in the box today:

- ▶ Crystal Reports
- ▶ Hyperion
- ▶ Cognos
- ▶ MicroStrategy
- ▶ Actuate

Standard reports for Crystal Reports are shipped with the application. Standard reports for other supported vendors are available through download from the respective companies. Check with your local reporting representative.

It is important to understand the standard reports that are available with the application and determine additional reporting functionality that would be suited for your situation and control management process. After you define your additional reporting needs, you can create custom reports based on your

knowledge of the reporting engine that you implement within IBM Workplace for Business Controls and Reporting.

We discuss custom reporting further in Appendix B, “Adding custom reports” on page 201.

For the remainder of this section, we discuss the Executive View and the standard reports.

## Executive View

The Executive View provides insight as to what has been done, what still needs to be done, what is effective, and what is ineffective. You can view the Executive View for any business unit level you have access to as defined within the application. This enables you to narrow or widen the scope on which you want to report.

**Example:** If you generate an Executive View report with a scope of the parent company, all information from the business units below it is rolled up into the view. Conversely, if you wanted to narrow the scope of the report, you can create an Executive View for the finance business unit only.

**Note:** Reporting is in real time, and the reports are generated from the current information on the fly every time you run a report.

Let us look at the Executive View of our parent company ACME in this example:

1. Go to the Executive View tab.
2. Select the business unit on which you want to report through the tree or children portlet. This sends the details into the Detail window, as shown in Figure 2-79 on page 105.

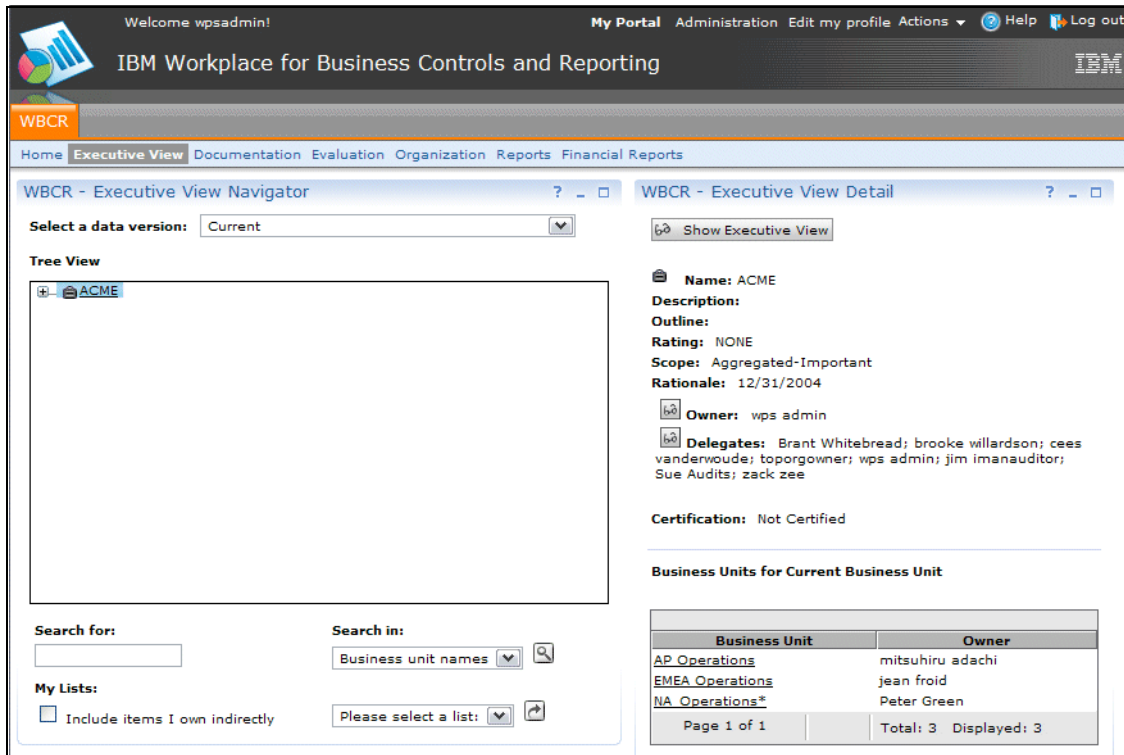


Figure 2-79 The Show Executive View button with ACME selected

3. Click **Show Executive View**. This opens a new browser window and loads the Executive View report, as shown in Figure 2-80 on page 106.

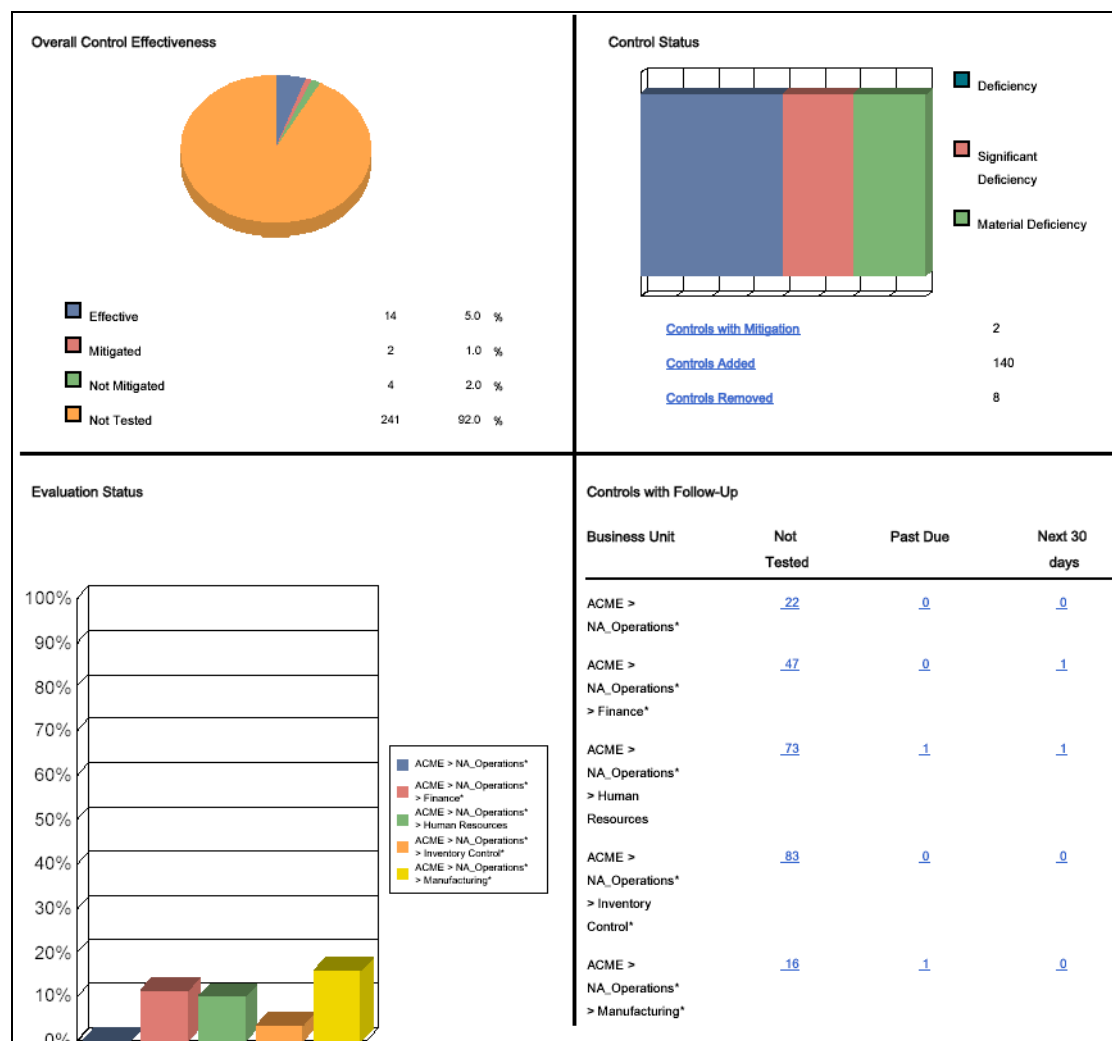


Figure 2-80 Executive View report

The Executive View consists of four quadrants. The two charts at the top of this report come from an overall reporting perspective, and the bottom two reports come from a project management focus. In addition, you can drill down in this report to view the details behind it.

The four quadrants contain the following views:

- Overall Control Effectiveness: This is a pie chart that shows the number and percent of:
  - Controls that have not been evaluated



- Controls that have been evaluated and are considered to be effective
- Ineffective controls that have some form of mitigation
- Ineffective controls that have no mitigation

**Note:** For the Executive View reports, the following definitions apply:

- ▶ An *Effective Control* is a control where the effectiveness field is set to Effective or None and there is an evaluation record for the control.
- ▶ An *Ineffective Control* is a control where the effectiveness field is set to Ineffective and there is an evaluation record for the control.
- ▶ *Ineffective with Mitigation* is an ineffective control where the observation is mitigated.
- ▶ *Ineffective with no Mitigation* is an ineffective control where there is either no observation record, or the mitigated field is set to 0.
- ▶ A *Not Tested* control is a control that does not have an evaluation record for the control.

- ▶ **Control Status:** The upper-right quadrant provides information about the level of deficiency for those controls that have been evaluated ineffective, those that lead to minor deficiencies versus significant deficiencies or even material ones.

You can drill down for more details by clicking the links for those with controls with mitigation, controls added after documentation was set to “complete,” and controls removed from the system (the Controls with Mitigation, Controls Added, and Controls Removed links, respectively). Figure 2-81 on page 108 shows an example of the drill-down report.

You will also notice two buttons on this window: PDF and Excel. Clicking either of these buttons enables you to export and save *any* report in the system in either of those formats, essentially enabling you to capture a snapshot of the data at a given moment in time.

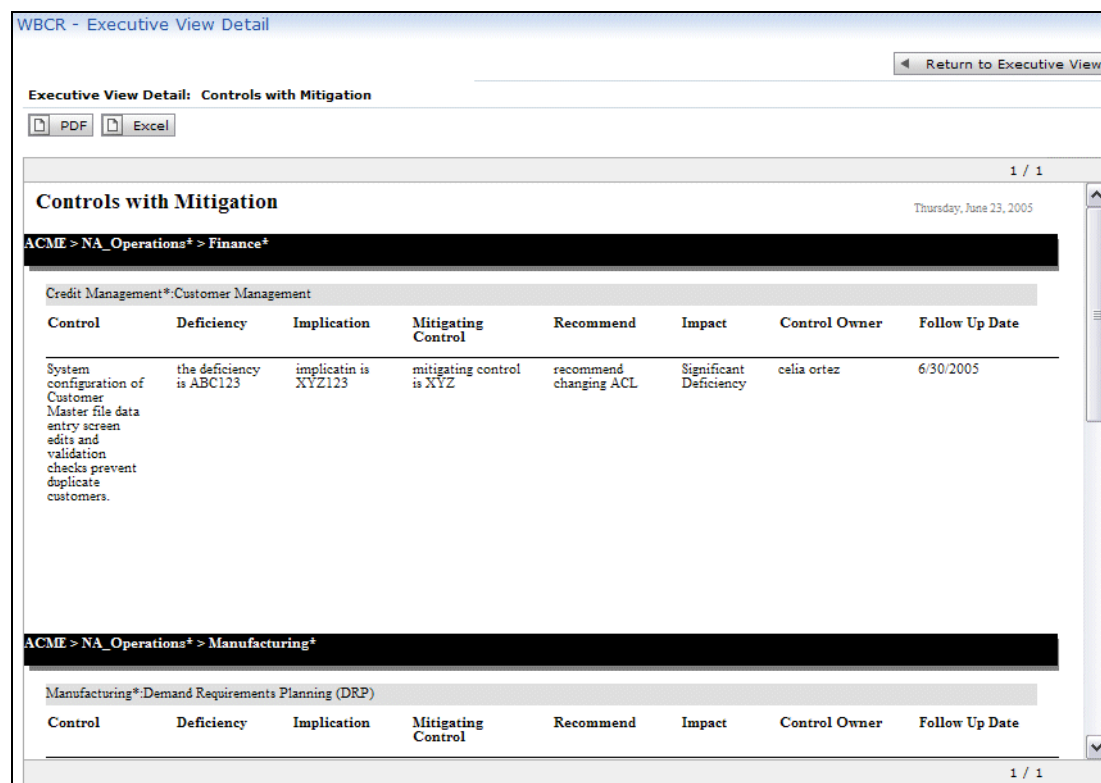


Figure 2-81 Controls with Mitigation Detail report from the Executive View

- Evaluation Status is the chart in the lower-left corner. This is where to get more information about control evaluation. You can look at the status broken down per business unit reporting up to the parent company. In this example, finance has evaluated close to 10% of controls, while manufacturing (yellow) have evaluated close to 15%. Inventory has barely started evaluating. To get even more information, you can now drill down again by clicking this chart to get the detail reports. Figure 2-82 on page 109 is an example of this.

WBCR - Executive View Detail

Return to Executive View

Executive View Detail: Evaluation Status Detail

PDF Excel

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### Evaluation Status Detail

Thursday, June 23, 2005

#### ACME > NA\_Operations\*

Process	# of Controls Documented	Controls Effective (%)	Ineffective Controls with no Mitigation (%)	Ineffective Controls with Mitigation (%)	# of Ineffective Controls with Mitigation	Untested Controls (%)	Process Owner
Regulatory compliance: Environmental Management	22	0	0	0	0	100	Peter . Green

#### ACME > NA\_Operations\* > Finance\*

Process	# of Controls Documented	Controls Effective (%)	Ineffective Controls with no Mitigation (%)	Ineffective Controls with Mitigation (%)	# of Ineffective Controls with Mitigation	Untested Controls (%)	Process Owner
Accounts Receivable*: Account for Sales Transactions	2	50	50	0	0	0	celia ortez

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Figure 2-82 Evaluation Status Detail

- Controls with Follow-Up is where you find controls by business unit that show the follow-up in three columns:
  - Not Tested: This represents the number of controls that have not yet been tested.
  - Past Due: Those controls that have a past due status for follow-up.
  - Next 30 days: Those controls for which a follow-up date is due within the next 30 days.

In this chart, any of the numbers are hot links. You have the ability to see any details behind those numbers. Figure 2-83 on page 110 displays the results of clicking a number in the Controls Past Due column. We can now see details about that control, specifically, who is the owner, and we can communicate with them and find out why follow-up is past due.

WBCR - Executive View Detail

Executive View Detail: Controls with Follow-up - Past Due

PDF Excel

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Thursday, June 23, 2005

**Human Resources**

Employee compensation:Human Resources Management			
Control	Control Owner	Process Owner	Follow Up Date
All employees receive detailed pay-stubs including rate, hours and deductions and would notify the entity in the instance of non- or under-payment.	kevin johnson	pierre leroi	4/29/2005

1 / 1

Figure 2-83 Controls with Follow-up - Past Due Detail

## Standard reports

Standard reports are accessed from the Reports tab within the application and are generated based on the business unit that you select within this tab.

Figure 2-84 on page 111 shows the Reports tab after selecting **North American Operations**. The children portlet now provides you with a Business Unit tab and a Reports tab. Selecting the Reports tab provides you with a list of all the reports you can run on the fly. In this example, all of these reports are automatically scoped to aggregate up to the North American Operations level. In Figure 2-84 on page 111, you see the reports available from this tab and a good description of each report.

**Tip:** Custom reports can be added to this list. For examples and steps, see Appendix B, “Adding custom reports” on page 201.

Business Units and Reports for Current Business Unit	
Business Units	Reports
<b>Reports</b>	
Page 1 of 1	
Report	Description
<b>Scope</b>	
<a href="#">Corporate Structure</a>	Lists the scope value for each business unit.
<a href="#">Documentation Status</a>	Lists processes and their documentation completion status.
<a href="#">Linking Matrix</a>	Lists process and controls relative income statement items.
<b>Document &amp; Assess</b>	
<a href="#">Control Matrix</a>	Lists the control information under each process, sub-process, and risk within the selected business unit(s).
<a href="#">Control Owner</a>	Lists the control information for each control owner within the selected business unit(s).
<a href="#">Controls with Follow-Up</a>	Lists controls that have follow up dates within the selected business unit(s).
<a href="#">Ineffective Controls</a>	Lists ineffective controls within a selected business unit(s).
<a href="#">Observations and Recommendations</a>	Lists of observations and recommendations for each control within the selected business unit(s).
<a href="#">Evaluation of Controls</a>	Lists the evaluation information for each control within the selected business unit(s).
<b>Coso</b>	
<a href="#">Coso Heat Map</a>	Provides a graphical depiction of the relationship between the five Coso control components, their effectiveness rating, and impact rating for each selected business unit(s).
<a href="#">Coso Control Components</a>	Shows the percentage value or absolute values of controls that are assigned to the control components for each process.
<b>Users</b>	
<a href="#">User Management</a>	Lists information about users for all business units, including group, role, and area. For Administrators only.
Page 1 of 1	

Figure 2-84 Reports list

Some examples of reports from this list include:

- Documentation Status

For each node in the organization that is *not* considered *Not Important*, the Documentation Completed status is shown. Figure 2-85 shows an example of a Documentation Status report.

WBCR - Reports Detail

Report: Documentation Status

PDF Excel

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Thursday, June 23, 2005

Business Unit	Process Names	Documentation Completed
NA_Operations* > Finance* > Treasury Operations	Materials Management	No
NA_Operations* > Finance*	Compute Current Federal Income Tax Expense	No
	Reconciliation - ING Canada	No
	Purchasing	No
	Lawson Purchasing	No
	[IT Infrastructure] End User Computing	No
	Premiums	No
	Payables	No
	Underwriting	No
	Process Accounts Payable	No
	Accounts Receivable*	Yes
	Credit Management*	Yes
NA_Operations* > Human Resources	Lawson Payables	Yes
	Employee compensation	Yes

1 / 1

Figure 2-85 Example of a Documentation Status report

► Linking Matrix

This report lists process and controls relative to income statement items. It shows what controls are associated with what line items in the financial reports including the financial assertions. Figure 2-86 shows an example of a Linking Matrix report.

WBCR - Reports Detail

Report: Linking Matrix

PDF Excel

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### Linking Matrix

Thursday, June 23, 2005

Caption	Current Year-End Balance Millions (US\$)	Prior Year-End Balance Millions (US\$)	Business Unit	Process	Risk	Control Name	Assertions
Costs and Expenses							
Cost of Goods Sold	31,903	26,812	NA_Operations* > Manufacturing*	Manufacturing*:Bill of inventory (BOM)	Bill of material master data is inaccurate.	Bill of Material master data changes are reviewed regularly using standard reports.	P
						Only authorized users have the ability to maintain Bill of Material data.	A
					Bill of material master data used for production is invalid.	A item master record exists before a material can be included on a Bill of Material.	A

1 / 1+ Jump to page: 1

Figure 2-86 Example of the Linking Matrix report

► Observations and Recommendations

This report is generated by querying for controls that are not effective and have the selected impact within a selected organization. Figure 2-87 on page 114 shows an example Observations and Recommendations report.

You can select an impact type or all of them (Material Deficiency, Deficiency, Significant Deficiency, or All).

The Observations and Recommendations report data is grouped by the process/subprocess within an organization.

For each subprocess, a grid is shown with the following columns:

- Control
- Deficiency
- Implications
- Mitigating Control
- Recommendations
- Impact
- Owner

WBCR - Reports Detail

Report: Observations and Recommendations

Select Impact: Significant Deficiency

PDF Excel

**Observations and Recommendations** Thursday, June

**NA\_Operations\* > Finance\***

Process	: Credit Management*:Customer Management					
Control	Deficiency	Implications	Mitigating Control	Recommendations	Impact	Owner
System configuration of Customer Master file data entry screen edits and validation checks prevent duplicate customers.	the deficiency is ABC123	implicatin is XYZ123	mitigating control is XYZ	recommend changing ACL	Significant Deficiency	celia ortez

Figure 2-87 Sample Observations and Recommendation report

## Reporting functionality in Version 2.5.1

Version 2.5.1 offers a new reporting option for our customers, in addition to Business Objects (Crystal Reports), Hyperion, Cognos, and so on, by including



IBM DB2 Alphablox in the box with IBM Workplace for Business Controls and Reporting. This provides the ability for our customers to build and embed their own reports for IBM Workplace for Business Controls and Reporting. Due to the limitation of time between the acquisition of Alphablox and the shipment of Version 2.5.1 no standard reports were included. However, in the future versions, expect more integration between the two applications.





# IBM Workplace for Business Controls and Reporting administration

This chapter describes the technical and functional responsibilities of the administrator for an IBM Workplace for Business Controls and Reporting system. We discuss the demarcation of the IBM WebSphere Portal administration and Workplace for Business Controls and Reporting-specific responsibilities. This chapter covers the following topics:

- ▶ WebSphere Portal administration versus Workplace for Business Controls and Reporting administration
- ▶ Access control
- ▶ Defining the financial year
- ▶ Catalogs and data import
- ▶ Global settings
- ▶ Label Manager
- ▶ Versioning and archiving
- ▶ Scheduling asynchronous tasks
- ▶ Enabling notification rules

## 3.1 Administrative responsibilities

When IBM Workplace for Business Controls and Reporting is installed, it adds an administrative component to the WebSphere Portal Administration page. The administration of a complete Workplace for Business Controls and Reporting system can involve many different tasks depending on the type of deployment, configuration, and environment. It can include technical responsibilities related to administrating:

- ▶ IBM WebSphere Application Server and the HTTP server
- ▶ WebSphere Portal server
- ▶ LDAP directory
- ▶ DB2 UDB
- ▶ DB2 Content Manager
- ▶ The reporting engine

In most cases, responsibilities in these areas are clearly demarcated, and we do not discuss any of the specific technical responsibilities related to the day-to-day availability, administration, and monitoring of these components. Refer to 4.3, “Expertise and skills required” on page 191 for a list of suggested readings and classes available for some of these applications.

In some deployments, Workplace for Business Controls and Reporting might run as a stand-alone portal instance, in which case, the Workplace for Business Controls and Reporting administrator can have extended responsibilities and becomes synonymous with the WebSphere Portal administrator. For the purpose of this Redpaper, we focus, however, on those administrative tasks that are directly related to managing the Workplace for Business Controls and Reporting system itself through functionality provided by the application. In some cases, access to the WebSphere Portal Administration page is required. We indicate where this is the case so that the Workplace for Business Controls and Reporting administrator can coordinate with the Portal administrator.

### 3.1.1 Separating Workplace for Business Controls and Reporting administrator access from Portal administrator access

Often, the Workplace for Business Controls and Reporting administrator function will be a responsibility separate from the WebSphere Portal administration role. However, because of the way Workplace for Business Controls and Reporting integrates the Workplace for Business Controls and Reporting administration with the Portal Administration page, the Workplace for Business Controls and Reporting administrator needs to be a member of the *wpsadmins* group in order to get to the administrator pages. Many customers want to restrict access for the

IBM Workplace for Business Controls and Reporting administrator to Workplace for Business Controls and Reporting-specific functions only.

To set up the Workplace for Business Controls and Reporting system such that the Workplace for Business Controls and Reporting administrator (for example, *wbcradmin*) has access only to specific functions, perform the following steps:

1. Log in to WebSphere Portal as the Portal administration user (for example, *wpsadmin*).
2. Navigate to **Administration** → **Access** → **Users and Groups**.
3. Select the **All Portal Users** group.
4. Create a new group (for example, *wbcradmins*).

We now configure the access control lists (ACLs) for this new group so that it has access to the Administration page and just the Workplace for Business Controls and Reporting Administration portlets.

5. Navigate to **Administration** → **Access** → **Users and Groups Permissions**.
6. Select **User Groups** and select the group you created in step 4 for the Workplace for Business Controls and Reporting administrator users.
7. Select **Pages** for the Resource Type and navigate to **Content Root** → **Administration** → **WBCR Administration**. Select **Assign Access** for the Workplace for Business Controls and Reporting Administration page, as shown in Figure 3-1 on page 120.

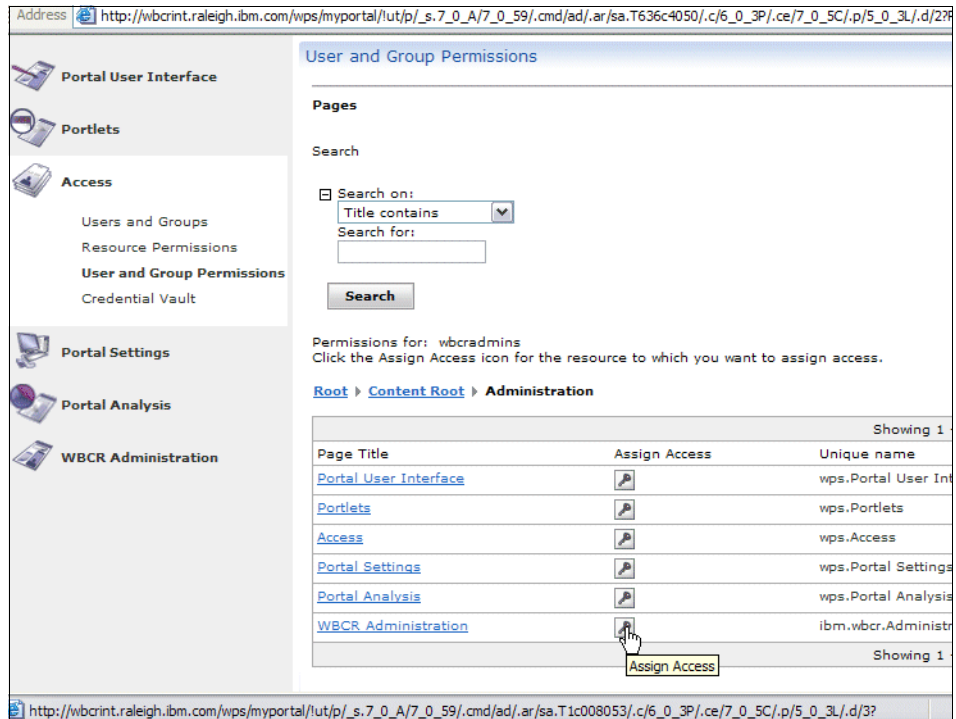


Figure 3-1 Assign wbcadmins access to the Administration page

8. As shown in Figure 3-2 on page 121, select the **User** role under the Explicitly Assigned column. Click **OK**, and then **Done** to save and return to the Resource Type level.

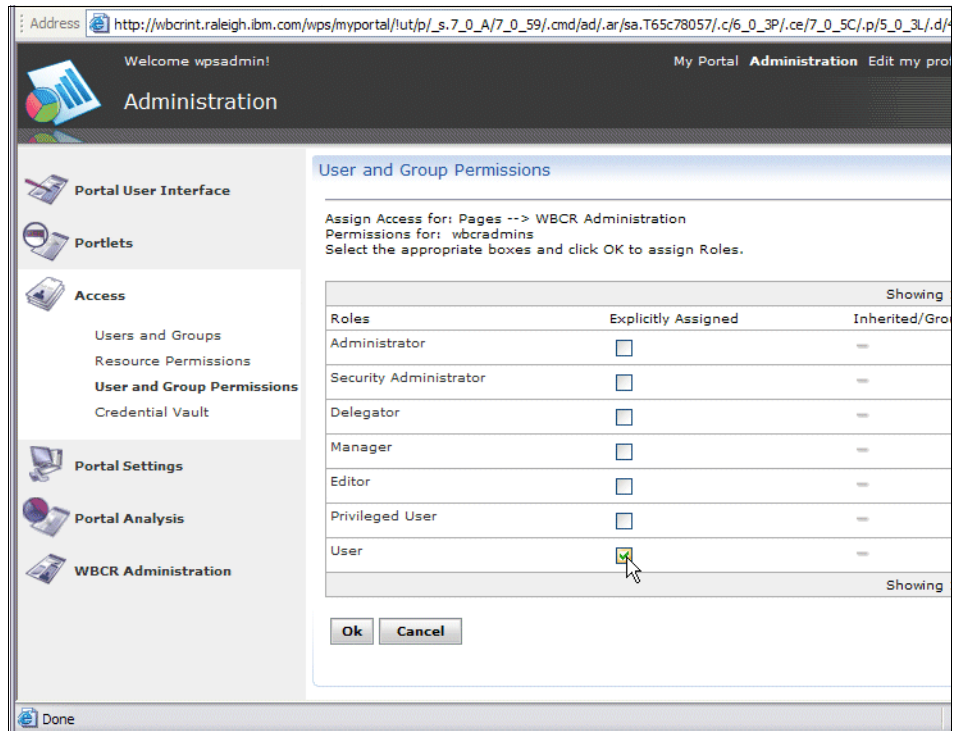


Figure 3-2 Assign User role permissions

9. Next, we need our wbcadmins group to be able to view all the Workplace for Business Controls and Reporting Administration portlets. Select **Portlets** under the Resource Type.
10. Search for Scheduler and explicitly assign the **User** role for your wbcadmins group. Repeat this step for all of the following Workplace for Business Controls and Reporting Administration portlets:
  - Scheduler
  - Notification Manager
  - Label Manager
  - Global Settings
  - Fiscal Year
  - Import
  - Access Control Administration

11. Now that we created the Workplace for Business Controls and Reporting administrator user group and configured the page and portlets permissions for this group, we need to add the Workplace for Business Controls and Reporting Administrative users to this group. Navigate to **Administration** → **Access** → **Users and Groups**.
12. Search for and select the wbcadmins group you created. Click **Add Member**, search, and add the Workplace for Business Controls and Reporting administrator users to this group.

**Note:** Rather than having named users for the Workplace for Business Controls and Reporting administrator role, you might want to create a new user, such as wbcadmin.

13. Workplace for Business Controls and Reporting also deploys a set of internal roles (see 3.2, “IBM Workplace for Business Controls and Reporting access control” on page 125). Users who are Workplace for Business Controls and Reporting administrators must also be a member of the Workplace for Business Controls and Reporting global role administrator.
14. Navigate to **WBCR Administration** → **Access Control**. Select **Administrator**, and then click the **Edit** icon. Search for user names (for example, wbcadmin) and add them to the administrator role. See Figure 3-3 on page 123.



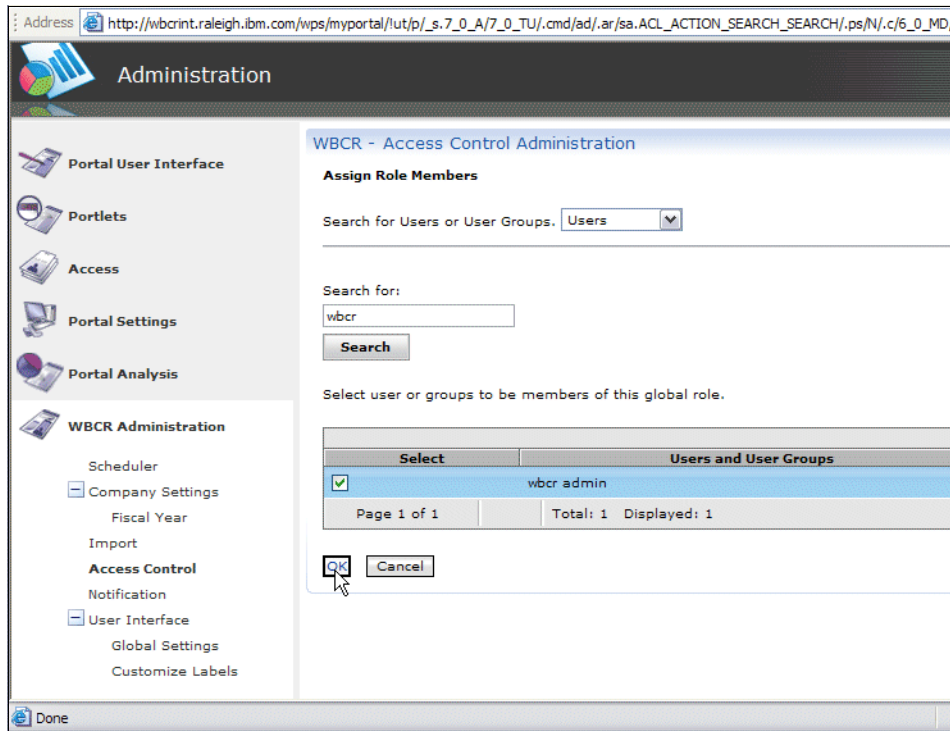


Figure 3-3 Assign wbcraadmin to the administrator role

All users added to the wbcraadmins group should now be able to log in to WebSphere Portal and see the Administration link and be able to use only the Workplace for Business Controls and Reporting Administration portlets, as displayed in Figure 3-4 on page 124.

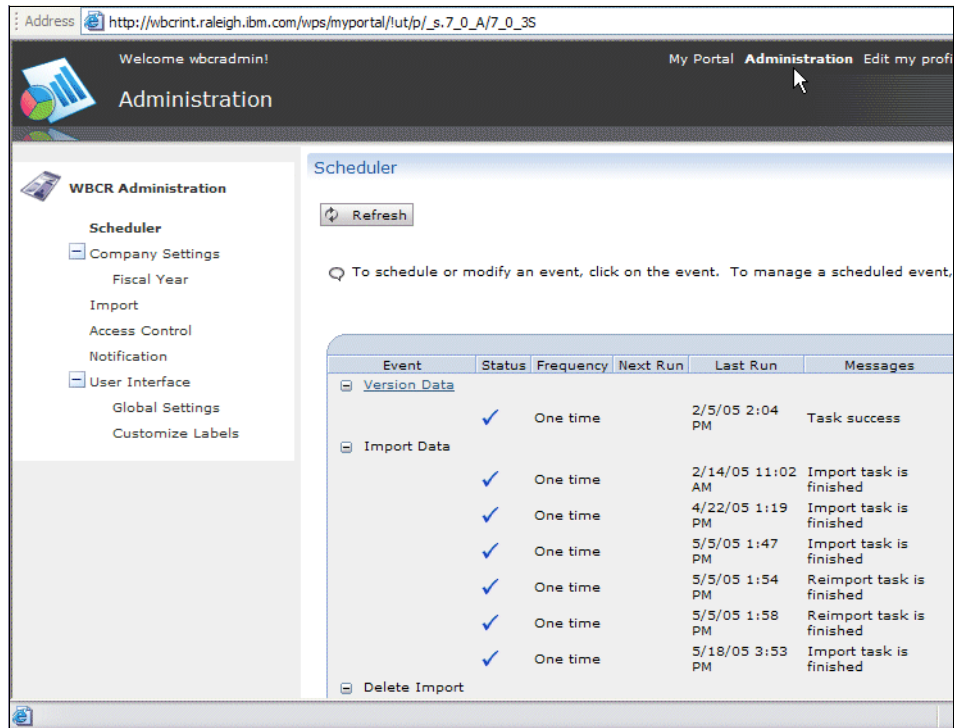


Figure 3-4 wbcadmin can only access Workplace for Business Controls and Reporting

### 3.1.2 Changes to administration in IBM Workplace for Business Controls and Reporting Version 2.5.1

The IBM Workplace for Business Controls and Reporting 2.5.1 release provides an inherent distinction between the WebSphere Portal administration and Workplace for Business Controls and Reporting administration by moving most of the Workplace for Business Controls and Reporting-specific administrative functions to a separate tab within the application interface. Scheduling functionality and configuration settings for the SMTP server responsible for sending notifications and alerts remains under the Portal administration. All other Workplace for Business Controls and Reporting administrative functions are accessible through the Workplace for Business Controls and Reporting Settings tab for users in the role of Workplace for Business Controls and Reporting administrator, as shown in Figure 3-5 on page 125.

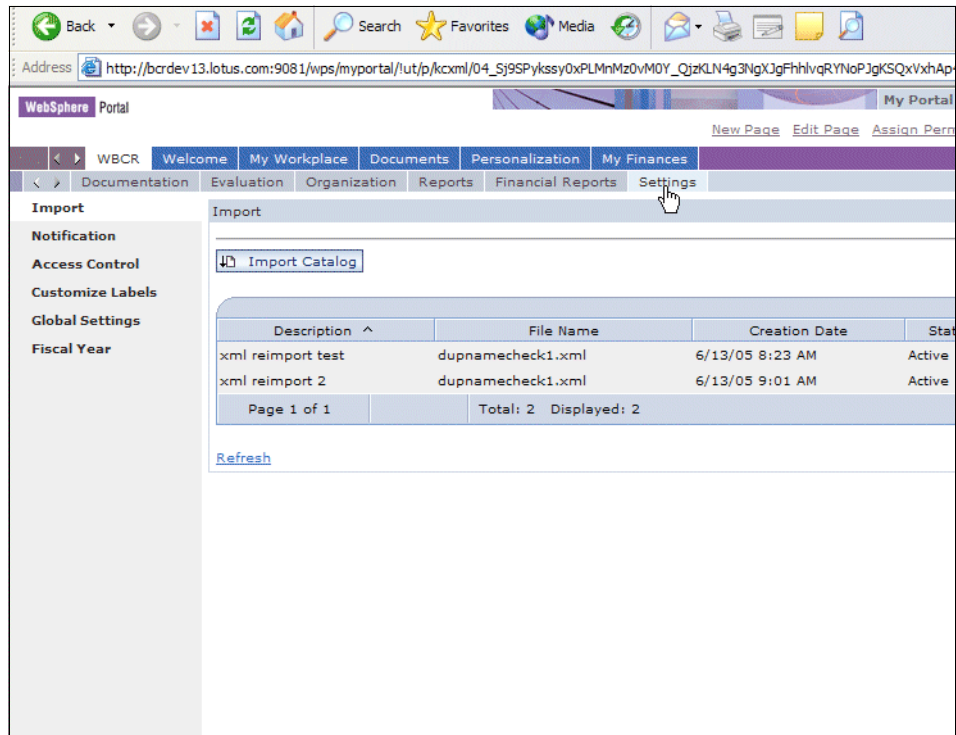


Figure 3-5 IBM Workplace for Business Controls and Reporting V2.5.1 Settings tab

## 3.2 IBM Workplace for Business Controls and Reporting access control

The IBM Workplace for Business Controls and Reporting administration area for access control is used by the Workplace for Business Controls and Reporting administrator to:

- ▶ Add members to the IBM Workplace for Business Controls and Reporting *global roles*
- ▶ View and inspect privileges for the IBM Workplace for Business Controls and Reporting default roles
- ▶ Define and maintain custom IBM Workplace for Business Controls and Reporting roles and privileges

**Note:** IBM Workplace for Business Controls and Reporting does not deal with authentication and access to the WebSphere Portal pages and Workplace for Business Controls and Reporting portlets on those pages. Authentication is handled by Portal itself and access permission to Workplace for Business Controls and Reporting pages and portlets is dealt with by the Portal administrator. To create groups and grant these groups access to individual Workplace for Business Controls and Reporting pages, the steps are similar to those described in 3.1.1, “Separating Workplace for Business Controls and Reporting administrator access from Portal administrator access” on page 118.

### 3.2.1 Understanding the role-based access control model

IBM Workplace for Business Controls and Reporting implements a *role-based access control model*. Access control provides the necessary protection for all data resources, including all records in the IBM Workplace for Business Controls and Reporting data model, static catalog data model, and administrative data model. IBM Workplace for Business Controls and Reporting defines default roles for common members of an organization and provides the ability for Workplace for Business Controls and Reporting administrators to define custom roles.

- ▶ A *role* in IBM Workplace for Business Controls and Reporting is a set of permissions.
- ▶ A *permission* defines what action types can be performed on a specific resource type.
- ▶ *Action* types are:
  - Read
  - Edit
  - No Access
- ▶ *Resource* types can be:
  - *Objects* (business unit, process, subprocess, objective, risk, control, procedure, sample, evaluation)
  - *Attributes* of an object
  - Global settings
- ▶ The *access control list* (ACL) maps a role to a specific user and a specific object.

As an example, the ACL table can contain an entry specifying that user Celia Ortiz is in the role of organization owner for the business unit object Finance. IBM Workplace for Business Controls and Reporting can then derive from the

role definition what actions Celia is able to perform on this resource and resources associated with the Finance business unit object. The example in Figure 3-6 shows the set of permissions for the organization owner role.

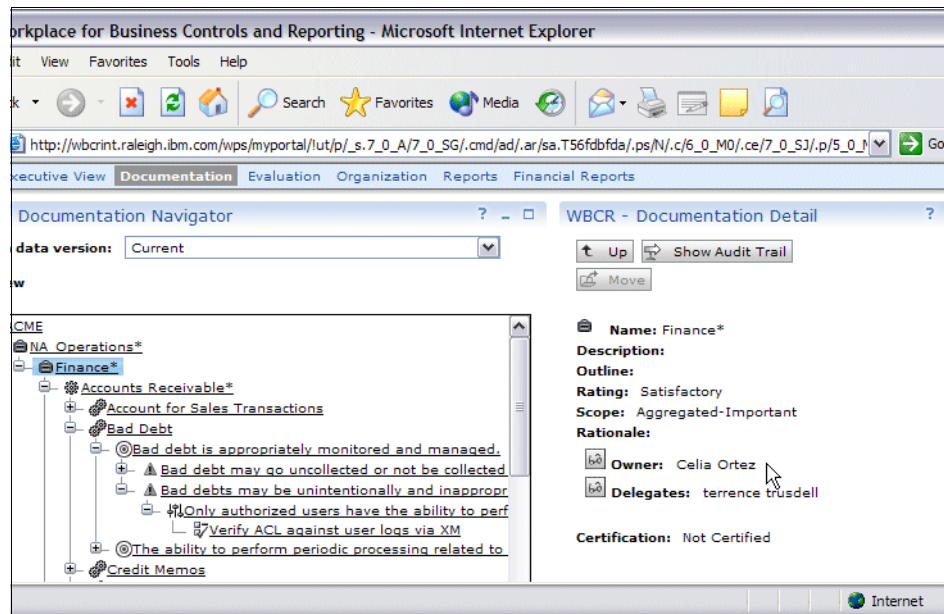


Figure 3-6 Celia Ortiz is organization owner of Finance unit

The Workplace for Business Controls and Reporting Administrator can inspect the organization owner role to see exactly what Celia is able to do with the Finance unit and its dependent objects:

1. Log in as the Workplace for Business Controls and Reporting administrator.
2. Navigate to **Administration** → **WBCR Administration** → **Access Control**.
3. Select **Role Management**.
4. Click the **View** icon next to Organization Owner.

Figure 3-7 on page 128 shows the resource permissions for the organization owner.

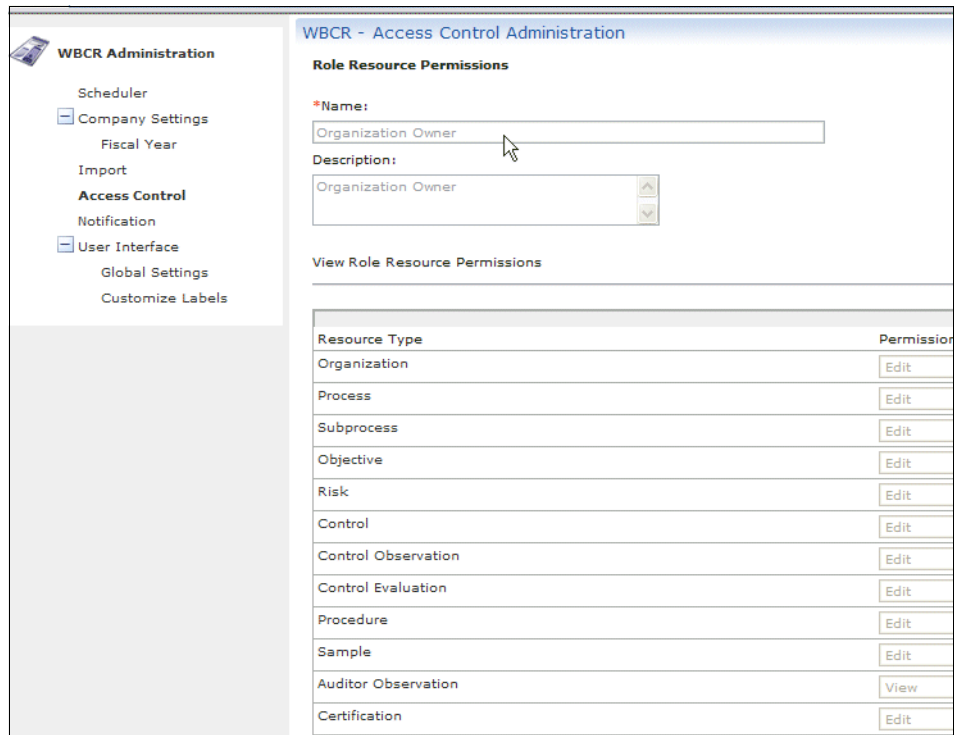


Figure 3-7 Inspecting the Resource Permissions for Organization Owner role

Table 3-1 shows the implications of the resource permissions associated with the organization owner role.

As an organization owner, Celia will be able to perform the actions described in Table 3-1.

Table 3-1 Organization owner permissions example

Access type: Resource	Implication
Edit: Organization object	Edit the Finance unit and all business units defined below that level (for example, Treasury).
Edit: Process object	Edit and create processes defined below that unit (for example, Accounts Receivable).
Edit: Subprocess object	Edit and create Subprocesses defined below that unit (for example, Bad Debt).
Edit: Objective object	Edit and create objectives defined below that unit (for example, Bad debt is appropriately managed and monitored).

<b>Access type: Resource</b>	<b>Implication</b>
Edit: Risk object	Edit and create risks defined below that unit (for example, Bad debt may go uncollected).
Edit: Control object	Edit and create controls defined below that unit (for example, Only authorized users have the ability...).
Edit: ControlObservation object	Edit and create control observations for any control defined below that unit.
Edit: ControlEvaluation object	Edit and create control evaluations for any control defined below that unit.
View: AuditorObservation object	View any auditor control observation below that unit.
Edit: Procedure object	Edit and create procedures for any control defined below that unit.
Edit: Sample object	Edit and create samples for any procedure defined below that unit.
Edit: Certification object	Certify the unit itself and any other unit, process, and control defined below that unit.
No Access: Key Control attribute	Cannot select or clear the controls "For Evaluation" under that unit.
No Access: Control Impact attribute	Cannot edit the Impact field on any control observation below that unit.
No Access: Control Frequency attribute	Cannot edit the control execution frequency on any control evaluation below that unit.
No Access: Control Next Evaluation attribute	Cannot edit the next evaluation date on any control evaluation below that unit.
Edit: ACL	Edit the ownership and delegation for any object defined below that unit.
Edit: ChildNodes	Can create new business unit and processes below that unit.
No Access: Configuration	Does not have access to global settings, financial year definition, or notification rules.
No Access: Import	Cannot load or reload catalogs into the system.
No Access: Version	Cannot create versions.
No Access: Financial	Cannot edit or create financial statements.

### 3.2.2 Inheritance and traversability

A user *inherits* access to any object below the one at which explicit ownership has been granted. What the user is able to do with the indirectly owned objects is determined by the role. *Traversability* is required by the tree-like navigation: The user will have read access in a direct line up the tree in order to be able to understand the overall context and drill down to the objects the user owns.

In the following example shown in Figure 3-8, Mary owns Finance, has inherited access to all object nodes below Finance, and has traversability (read) access to EMEA and ACME. John owns Subprocess 2 and has traversability (read) access to Process 2, Finance, EMEA, and ACME.

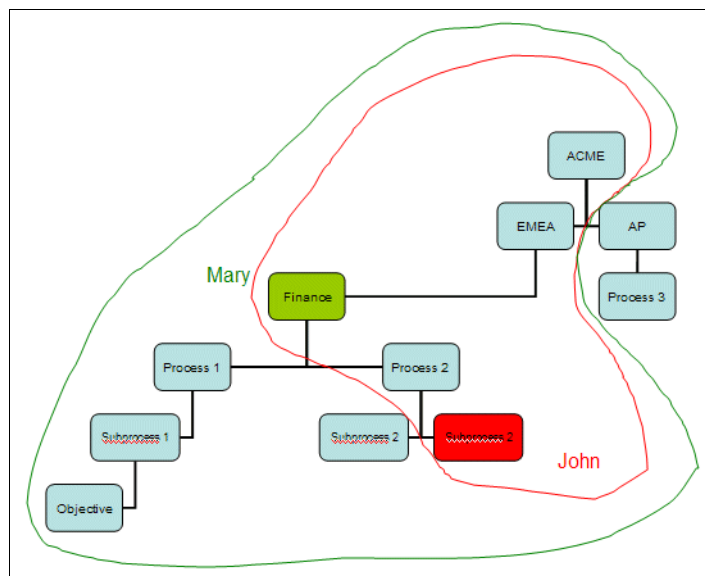


Figure 3-8 Inheritance and traversability

### 3.2.3 Default roles

IBM Workplace for Business Controls and Reporting comes with 13 out-of-the-box roles with predefined privileges that provide out-of-the-box security. In Release 2.5.01, these privileges cannot be modified. In the 2.5.1 version, these default privileges can be changed.

#### Global roles

Global roles are those roles that are not associated with any specific IBM Workplace for Business Controls and Reporting object (business unit, process, subprocess, control, procedure). Members of global roles are added through the



IBM Workplace for Business Controls and Reporting administrative interface and have system wide applicability. The following list describes global roles:

► Administrator

Users added to the IBM Workplace for Business Controls and Reporting administrator role will have access to any object in the IBM Workplace for Business Controls and Reporting system, including the meta functions. All of the privileges in the administrator role are set to Edit.

After installation, the IBM Workplace for Business Controls and Reporting administrator will already have been added to this role. We recommend that you add at least one more user with Workplace for Business Controls and Reporting administration access as a backup.

► Auditor

The intention of the global auditor role is to provide users added to the IBM Workplace for Business Controls and Reporting auditor role with read access to any object in the IBM Workplace for Business Controls and Reporting system. In addition these, users will be able to create *auditor observations* for any control in the system to provide the auditor's perspective on a control's effectiveness.

**Note:** In the 2.5 release (including the 2.5.01 fix pack), adding members to the global auditor role does not work as intended. Adding users to the global auditor role through the IBM Workplace for Business Controls and Reporting administrative interface does not have any effect. To add users with auditor role, perform the following steps:

1. Go to the Organization tab.
2. Navigate to the business unit to which the intended user should have auditor access. Select the top parent unit for system-wide auditor access, or a specific business unit below the parent level to restrict the auditor access to that level and below.
3. Switch to Edit mode.
4. Click the pencil icon next to **Delegates**.
5. Click **Add Delegate**.
6. Search for user to be added by typing in part of the name.
7. Select the user to be added in the auditor role and click **OK**.
8. From the drop-down list next to the newly added user name, select **Auditor**.
9. Click **OK**.

In the IBM Workplace for Business Controls and Reporting 2.5.1 release, users can be added to the global auditor role through the IBM Workplace for Business Controls and Reporting administrative interface. If the global setting “Allow System Wide Auditor Access” has been enabled (see “Additional global settings in IBM Workplace for Business Controls and Reporting V2.5.1” on page 145), nothing else needs to be done to provide these users with the auditor privileges throughout the IBM Workplace for Business Controls and Reporting system. If this global setting is disabled, users are added in auditor roles as described earlier for the IBM Workplace for Business Controls and Reporting 2.5 release. Adding members through the global role permissions will have no effect.

**Tip:** If auditors need access only to specific parts of the organization, add auditors through the Organization tab by defining users as delegates in the auditor role at the appropriate business unit level. Only when using IBM Workplace for Business Controls and Reporting Version 2.5.1 and having all auditors by default with system-wide (read) access, will you be able to assign users to the global auditor role in the IBM Workplace for Business Controls and Reporting administrative interface.

► Finance Owner

Users added to the finance owner role will be able to create, edit, and delete financial statement captions and line items through the Financial Reports tab.

## Non-global roles

IBM Workplace for Business Controls and Reporting provides 10 default non-global roles with predefined privileges. Members are added to these roles when specific objects are created in the IBM Workplace for Business Controls and Reporting hierarchy. In releases prior to IBM Workplace for Business Controls and Reporting Version 2.5.1, these roles and privileges cannot be modified. Version 2.5.1 supports customization of these roles by changing the privileges. The standard roles are:

- Organization owner
- Organization helper
- Process owner
- Process helper
- Subprocess owner
- Subprocess helper
- Control owner
- Control helper

- ▶ Procedure owner
- ▶ Procedure helper

The privileges for each role are defined in such a way that owners and helpers at each resource level in the object hierarchy have at least view access to parent objects to ensure traversability. As an example, if the subprocess owner role had no access at the process level, a subprocess owner would not be able to drill down the tree to navigate to the owned resource.

### 3.2.4 Custom-defined roles

Custom roles can be defined in IBM Workplace for Business Controls and Reporting to meet specific customer with respect to the privileges groups of users might need to have in the IBM Workplace for Business Controls and Reporting application. For example, the standard role for auditor does not have privileges to evaluate controls. If an organization wanted to allow auditors to also evaluate controls, a custom role for auditors can be created. To add a custom role, perform the following steps:

1. Navigate to **WBCR Administration** → **Access Control**.
2. Go to the Role Management tab.
3. Click **Add New Role**.
4. Type Auditor with Evaluation Rights in the Name field and provide optional description in the Description field.
5. Set the privileges for each resource. Figure 3-5 on page 125 shows sample settings that allow auditors to *view* all objects and *edit* control evaluations, procedures, and samples. To also allow auditors to *create* control evaluations, procedures, and samples, this role needs to be granted Child Nodes **Edit** privileges.

Resource Type	Permission
Organization	View
Process	View
Subprocess	View
Objective	View
Risk	View
Control	View
Control Observation	View
Control Evaluation	Edit
Procedure	Edit
Sample	Edit
Auditor Observation	Edit
Certification	View
Key Control	No Access
Control Impact	Edit
Control Frequency	View
Control Next Evaluation	View
Access Control List	View
Child Nodes	Edit
Configuration	No Access
Version	No Access
Import	No Access
Finance	View

Figure 3-9 Setting privileges

6. Click **OK** to save the new role.

This role is now available when assigning ownership to specific objects in the hierarchy. This particular role should only be used in the Delegates field and only at the Control level; this role should not be applied at higher levels in the hierarchy such as a Business Unit. The Child Nodes privilege, required to allow this role to create new procedures and samples, will have an undesired side effect, allowing the external auditor to create new child objects at that level (for example, new business units and processes). This is a caveat in the current role-based access model.

**Important:** In the current release, this functionality should only be used after careful up-front planning and tested for unwanted side effects. Roles cannot be removed or edited after a member has been assigned to that role.

## 3.3 User interface

In this section, we examine a range of settings that determine the general behavior of the application and the way information is displayed to end users. There are two administrative portlets under the user interface:

- ▶ Global Settings

General settings that affect the way the end user interacts with the application.

- ▶ Customize Labels

This enables the Workplace for Business Controls and Reporting administrator to customize labels, keyword values, and messages to match corporate language and terminology.

**Note:** The *overall* look-and-feel of the Workplace for Business Controls and Reporting application can be customized by changing the *themes and skins* to match an organization's corporate guidelines and standards. A theme is an interchangeable front end for a portal place. A theme controls elements such as the banner, navigation, and look and feel for a place. A skin is an interchangeable front end for a portlet. A skin controls elements such as the minimize and maximize icons, the title bar, and the background color or pattern.

It is the WebSphere Portal administrator's responsibility to apply a customized theme and skin to the portal if the default IBM Workplace for Business Controls and Reporting theme needs to be replaced.

### 3.3.1 Global settings

To navigate to the global settings, select **WBCR Administration** → **User Interface** → **Global Settings**. Figure 3-10 on page 136 shows the Global Settings window.

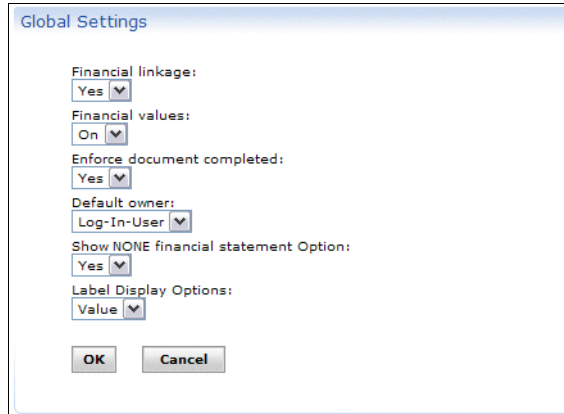


Figure 3-10 Global Settings window

## Enforcing financial linkage

Sarbanes-Oxley Section 404 requires organizations to publish information in their annual reports concerning the scope and adequacy of the internal control structure and procedures for financial reporting.

To help manage internal control over financial reporting, IBM Workplace for Business Controls and Reporting enables you to establish linkage such that subprocesses impacting financial statement line items can be linked to these items. Not all processes and their related controls, however, directly impact financial statement line items. Examples are processes and controls that impact the control environment or operations such as general IT controls.

The settings for Financial linkage (Yes/No) and Show NONE financial statement Option, together, control if subprocesses must be linked to financial statement line items.

In a very narrowly scoped system, in which only controls that impact financial reporting are documented, you might want to enforce financial linkage to make sure that each and every subprocess has a linkage. To configure IBM Workplace for Business Controls and Reporting to this narrow scope, perform the following steps:

1. Set Financial linkage to **Yes**.
2. Set Show NONE financial statement Option to **No**.
3. When these settings are changed, you need to log out of the portal and log back in order to see the changes take effect.

Using these global settings, a subprocess cannot be saved unless it is linked to at least one significant line item on the financial statements, as shown in Figure 3-11.

WBCR - Documentation Detail

To add a new subprocess, complete the fields below, then click OK.

\* Subprocess:  
Credit Memos

Description:

\* Owner: wbc admin

\* Delegates:

\* Rating:  
None

Outline:

Select Statement:  
Income Statement

Subprocess Associations		Current Year-End Balance (millions)	Prior Year-End Balance (millions)
	<b>Income Statement</b>		
	<b>Costs and Expenses</b>		
<input type="checkbox"/>	Cost of Goods Sold	31,903	26,812
<input type="checkbox"/>	Cost of Services Sold	14012	13022
	<b>Costs and Expenses</b>		
<input type="checkbox"/>	Operating (exclusive of depreciation and amortization shown below)	1917	1792
<input type="checkbox"/>	Selling, general and administrative	295	358
	<b>Costs and Expenses</b>		
<input type="checkbox"/>	Operating (exclusive of depreciation and amortization shown below)	1917	1792
<input type="checkbox"/>	Selling, general and administrative	295	358

Page 1 of 3  Total: 21 Displayed: 10

OK Cancel


 You have to select at least one financial item for the subprocess.

Figure 3-11 Subprocess linked to financial statement based on global settings

**Restriction:** Subprocesses can be imported from a catalog without financial linkage. Only when the imported subprocess is saved after being switched into edit mode will the financial linkage be enforced.

Table 3-2 on page 138 displays the effects of all possible combinations of these settings.

Table 3-2 Financial Linkage settings

Financial linkage	Show NONE	Impact
Yes	No	Linkage enforced, but “None” cannot be selected as a financial statement option.
No	No	None is not shown as an option but a subprocess can be saved without creating a linkage.
Yes	Yes	Linkage enforced, but None (the default) can be selected as an option.
No	Yes	Linkage is not enforced and None (the default) can be selected as an option. Effectively equivalent to the previous option.

## Displaying financial values

In some cases, customers might not want to show the actual financial statement line item values (current year-end and previous year-end) when linkage is established for the subprocess. To hide financial values, change the (default) value from On to **Off** in the Financial Values field. See Figure 3-12 on page 139.



WBCR - Documentation Detail

Edit one or more of these fields, then click OK.

\* Subprocess:

Credit Memos

Description:

description

\* Rating:

Satisfactory

\* Owner: Celia Ortiz

\* Delegates:

Outline:

Select Statement:

Income Statement

Subprocess Associations	
<input type="checkbox"/>	Earnings before Income Taxes
<input type="checkbox"/>	Gross Margin
<input type="checkbox"/>	EMEA
<input type="checkbox"/>	Income from Continuing Operations
<input checked="" type="checkbox"/>	Revenues
<input checked="" type="checkbox"/>	Sales of Goods
<input checked="" type="checkbox"/>	Sales of Services
<input type="checkbox"/>	Written Premium
<input type="checkbox"/>	AMGPL Written Premium
<input type="checkbox"/>	Commercial Accounts

Page 2 of 3 2 Go Total: 21 Displayed: 10

OK Cancel

Figure 3-12 Financial statement values hidden when user establishes linkage

**Note:** Any user with access to the standard reports will still be able to run the Linking Matrix report, which shows financial values regardless of the global setting.

## Enforcing Document Complete

A process owner can switch the Documentation Complete value for a process from the initial No value to **Yes** to indicate that documentation for a process has been completed.

The objects associated with that process can still be edited, but the Documentation Complete value cannot be switched back to No for that process. Only control evaluations for processes marked Documentation Complete are included in the executive dashboards and many of the other standard reports.

The global setting for Enforce Document Complete further affects the way switching the Documentation Complete value for a specific process impacts operations.

With the global setting enabled, the business objects (process, subprocess, objective, risk, control) for the associated process can no longer be edited after Documentation Complete value is switched to **Yes**.

With the global setting enabled, control owners can only start marking controls For Evaluation after the process owner switches the Documentation Complete value for the associated process to **Yes**. Note that only the control owner and control helper roles have the privilege to mark controls For Evaluation.

However, this does not mean that controls cannot be evaluated. If the organization wants to assure that evaluation does not commence until the Documentation Complete for a process is set to **Yes**, perform the following steps:

1. Set the global setting for Enforce Document Complete to **Yes**.
2. Log in with WebSphere Portal administration access (or coordinate with the Portal administrator to make these changes).
3. Navigate to **Portal Administration** → **Portlets** → **Manage Portlets**.
4. Search for portlets by entering WBCR in the Title contains field.
5. Select **WBCR - Evaluation Detail**.
6. Click **Modify parameters**.
7. In the blank parameter field, define ShowAllControlsForEval with a value of false.
8. Click **Add**.
9. Scroll to the bottom of the window and click **Save**.
10. Scroll to the bottom of the window and click **Cancel** to return to the Portlets list.
11. Select **WBCR - Evaluation Navigation** from the Portlets list.
12. Repeat steps 6-10.

After making these changes, control owners will see no controls when they go to the Evaluation tab. When the process owner switches the process to **Documentation Complete**, the control owners can receive notification (see 3.4.3, “Enabling mail rules” on page 154) and mark controls **For Evaluation** on the Documentation tab. On the Evaluation tab, only those controls marked For Evaluation are now available to be evaluated and tested.

**Note:** In the 2.5.1 release, the steps to add parameters to the portlets can be skipped. ShowAllControlsForEval will be predefined as a portlet parameter and the value can be defined through the global settings (see “Additional global settings in IBM Workplace for Business Controls and Reporting V2.5.1” on page 145).

## Determining default owner for process import from catalogs

This setting determines ownership when processes or subprocesses are imported from a catalog assuming the catalog does not specifically predefine owners for the objects in the process tree.

If the default setting **Log-in-User** applies, the user who performs the import from a catalog will become the owner of the process (or subprocess) and its related business elements.

If the default setting is changed to **parent**, the owner of the business unit will become the owner of the process and its related objects when the process is associated with that business unit by importing it from a catalog. If a subprocess is associated with an existing process object by importing the subprocess from a catalog, the process owner will become the owner of the subprocess and its related business objects.

## Displaying internal keys for labels

When the Label Display Options field is changed to **Key**, all labels in the user interface will show the internal keys rather than the actual values to help the IBM Workplace for Business Controls and Reporting administrator determine which keys need to be modified in case label changes are required. Actual changes are made through the Label Manager component (see 3.3.2, “Customizing the IBM Workplace for Business Controls and Reporting labels” on page 148).

As an example, suppose that the compliance team has seen the drop-down values for the Impact field on the Control Observation window and has determined that the term Material Deficiency needs to be customized to Material Weakness in order to match corporate terminology. As we will see, it can be challenging for the IBM Workplace for Business Controls and Reporting administrator to find out exactly which label or labels to change. After switching this global setting temporarily to **Key** and navigating to the Control Observation window for a control, we can now quickly determine that the label to be changed is **wbcr.control.observation.label.impact.material\_deficiency**, as shown in Figure 3-13 on page 142.

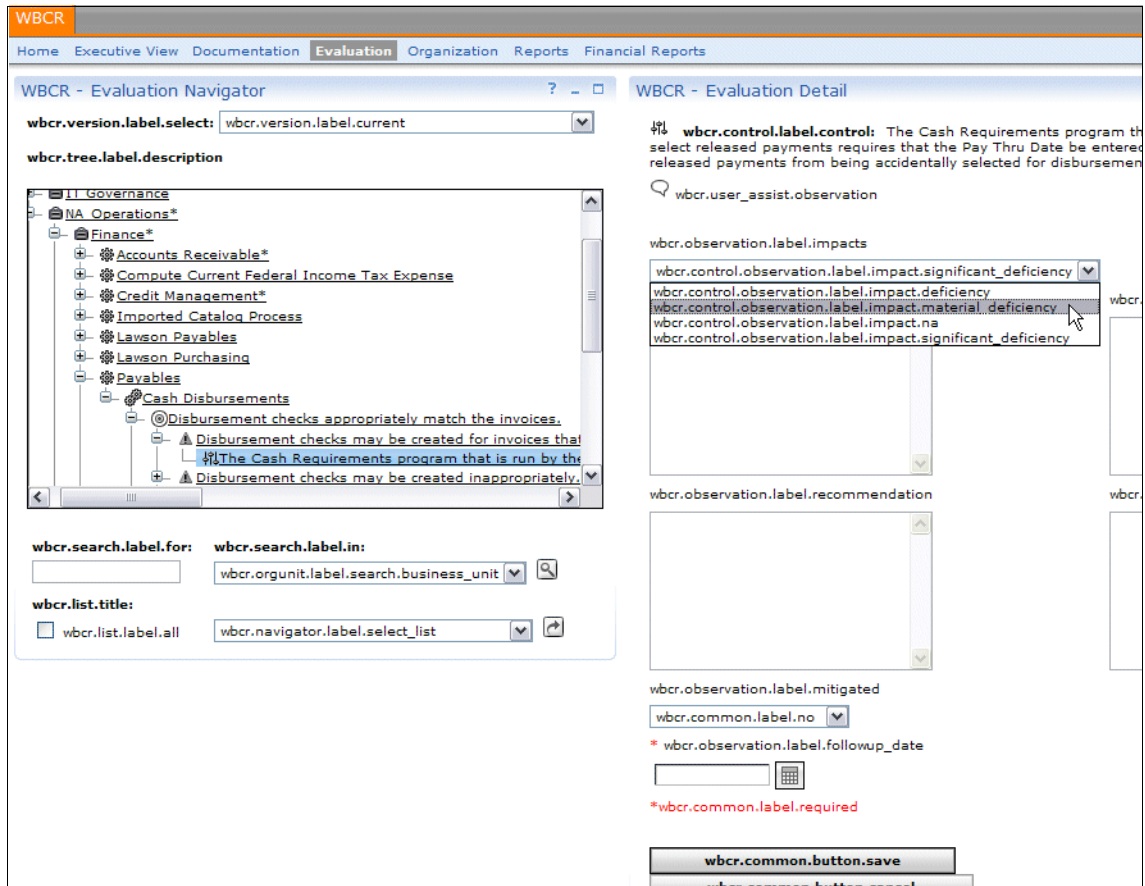


Figure 3-13 Displaying keys rather than values

**Note:** Use this setting with great caution and only when the system is not accessible for end users, because it will impact the user interface for all users.

## Hiding non-associated risks

Even though the IBM Workplace for Business Controls and Reporting user interface shows risks hierarchically below objectives, in the IBM Workplace for Business Controls and Reporting data model, both risks and objectives are child objects to a subprocess. This allows for n:n relationships such that one risk can be associated with multiple objectives and one objective can be associated with multiple risks. The relationship is established through *association*. A user associates risks with an objective on the Documentation tab by selecting one or more risks for the currently selected objective. In Figure 3-14 on page 143, the

user has selected only one risk, **Management does not review blocked sales transactions before further processing**, to be associated with the objective “Unusual or sensitive documents are subject to further management review prior to posting.” The other risk, “Billing transactions are not recorded completely and/ or accurately in the general ledger,” in this particular example, would clearly be associated with the objective “All billing transactions are recorded in the general ledger correctly and completely.”

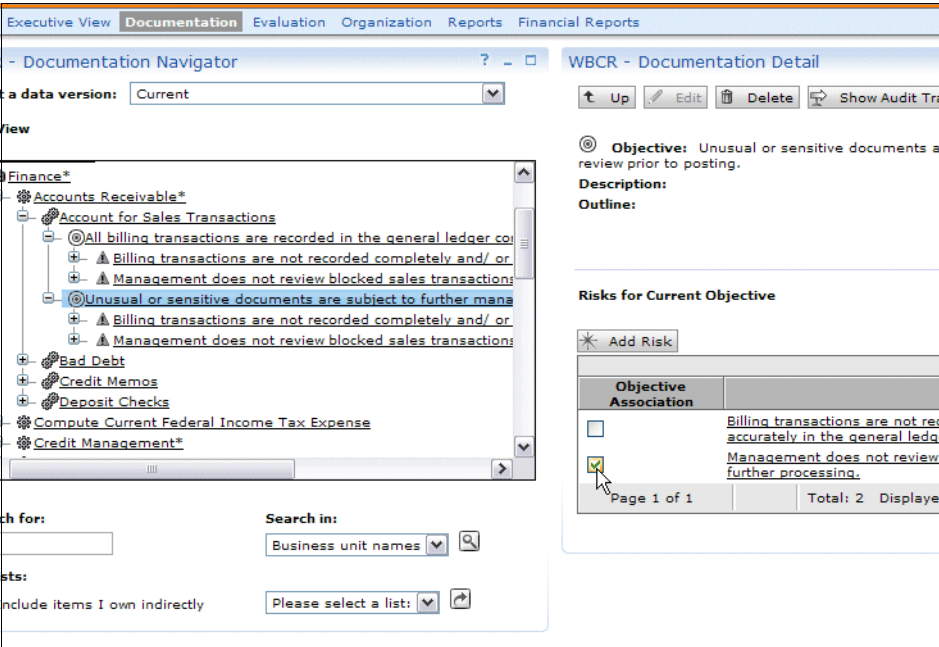


Figure 3-14 Risk-objective associations on the Documentation tab

On the Evaluation tab (Figure 3-15 on page 144), however, no matter what associations had been made during documentation, all risks will appear under each objective. This might be confusing for end users because there is no way of telling which risk is associated with which objective or objectives.

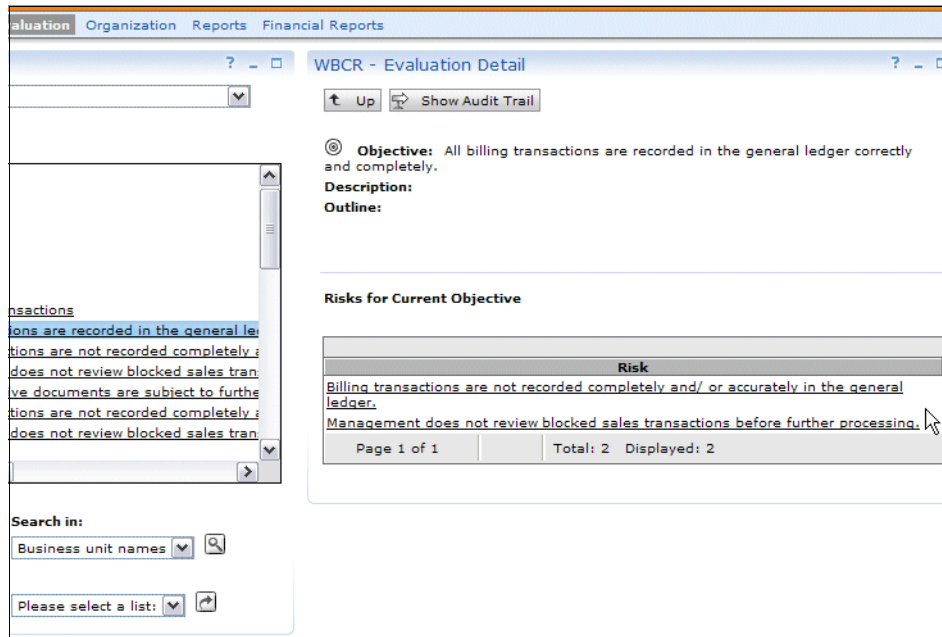


Figure 3-15 Both risks displayed under each objective

To change the way risk-objective associations are displayed on the Evaluation tab, perform the following steps:

1. Log in with WebSphere Portal administration access (or coordinate with the Portal administrator to make these changes).
2. Navigate to **Portal Administration** → **Portlets** → **Manage Portlets**.
3. Search for portlets by entering WBCR in the Title contains field.
4. Select **WBCR - Evaluation Detail**.
5. Click **Modify parameters**.
6. In the blank parameter field, define HideNonAssocRisksForEval with a value of true.
7. Click **Add**.
8. Scroll to the bottom of the window and click **Save**.
9. Scroll to the bottom of the window and click **Cancel** to return to the Portlets list.
10. Select **WBCR - Evaluation Navigation** from the Portlets list.
11. Repeat steps 6-10.

**Note:** In the 2.5.1 release, the steps to add parameters to the portlets can be skipped. HideNonAssocRisksForEval will be predefined as a portlet parameter and the value can be defined through the global settings (see “Additional global settings in IBM Workplace for Business Controls and Reporting V2.5.1” on page 145).

After setting the portlet parameters, the Evaluation tab (Figure 3-16) will only show the risks associated with an objective.

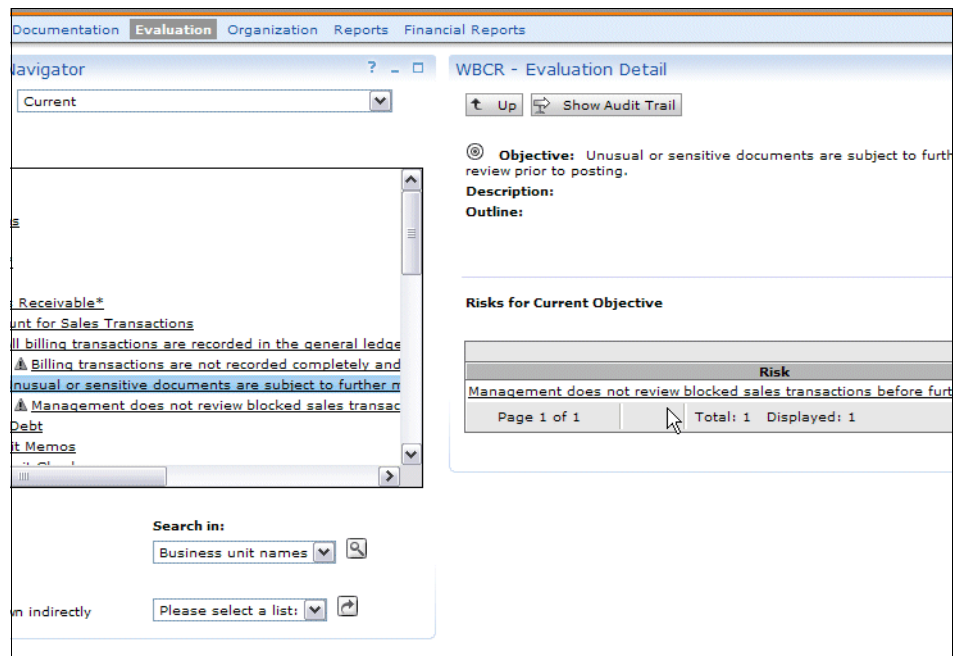


Figure 3-16 Evaluation tab shows only associated risks

## Additional global settings in IBM Workplace for Business Controls and Reporting V2.5.1

The 2.5.1 release supports a number of additional global settings. Many of these are related to new fields and functionality and whether to expose these attributes and functions. The window shown in Figure 3-17 on page 146 and Table 3-3 on page 146 provide an overview of these settings. We briefly cover only those global settings that are new in Version 2.5.1.

**Global Settings**

Financial linkage:  
Yes

Display Financial values:  
On

Enforce document completed:  
No

Default Process owner:  
Log-In-User

Default Control owner:  
Log-In-User

Show NONE financial statement Option:  
Yes

Label Display Options:  
Value

On the Evaluation tab, display:  
All Controls

Show Control "For Evaluation" field:  
Yes

Show Control Fraud Field:  
Yes

Show Control Intention Field:  
Yes

Show Information Processing Completeness:  
Yes

Show Information Processing Accuracy:  
Yes

Show Information Processing Validity:  
Yes

Show Information Processing Restriction:  
Yes

Hide Nonassociated Risk:  
No

Allow Process Attachments:  
Yes

During Versioning:  
Do not keep evaluation data

Support System-wide Auditors:  
No

OK Reset

Figure 3-17 Overview of V2.5.1 Global Settings window

Table 3-3 Overview of new global settings

Global setting	Options	Comment
Default Control owner	<ul style="list-style-type: none"> <li>Log-In-User (default)</li> <li>Organization Parent</li> <li>Process Owner</li> </ul>	Determines default ownership for controls imported from a catalog.
On the Evaluation tab, display	<ul style="list-style-type: none"> <li>All controls (default)</li> <li>Only Key Controls</li> <li>Only Controls marked "for Evaluation"</li> </ul>	Determines which controls will be displayed on Evaluation tab. In V2.5.1, no parameter changes to the portlets are required. In addition, control display can be filtered by a new attribute, Key Control.



Global setting	Options	Comment
Show Control “For Evaluation” field	<ul style="list-style-type: none"> <li>► Yes (default)</li> <li>► No</li> </ul>	With the introduction of new field Key Control, the organization might decide to hide the “For Evaluation” options altogether.
Show Control Fraud Field	<ul style="list-style-type: none"> <li>► Yes (default)</li> <li>► No</li> </ul>	New control attribute: Fraud Detection. The organization might want to hide this field if not used during current reporting period.
Show Control Intention Field	<ul style="list-style-type: none"> <li>► Yes (default)</li> <li>► No</li> </ul>	New control attribute: Detective/Preventative. The organization might want to hide this field if not used during current reporting period.
The next four fields are related to showing Information Processing Assertions (CAVR)	<ul style="list-style-type: none"> <li>► Yes (default)</li> <li>► No</li> </ul>	New control attributes showing four check marks for Completeness, Accuracy, Validity, and (Access) Restriction for information processing. Some customers will use these attributes, but other organizations might want to hide these.
Hide Nonassociated Risk	<ul style="list-style-type: none"> <li>► No (default)</li> <li>► Yes</li> </ul>	Setting this to <b>Yes</b> will only show risks associated with an objective on the Evaluation tab. In V2.5.1, no parameter changes to the portlets are required.
Allow Process Attachments	<ul style="list-style-type: none"> <li>► Yes (default)</li> <li>► No</li> </ul>	IBM Workplace for Business Controls and Reporting V2.5.1 enables you to attach documents or reference URLs at the process level. Some organizations might want to restrict attachments to the subprocess and procedure levels supported in prior releases.
During Versioning	<ul style="list-style-type: none"> <li>► Do not keep evaluation data (default)</li> <li>► Keep evaluation data</li> <li>► Only keep next evaluation date</li> </ul>	Provides more granular control over what happens with evaluation data during versioning. When a version is created, the default setting is to <i>remove all evaluation data</i> from the new <i>current</i> version. In IBM Workplace for Business Controls and Reporting V2.5.1, <i>all</i> evaluation data can be maintained in the new current version, or <i>only</i> the next control evaluation date can be kept.
Support System-wide Auditors	<ul style="list-style-type: none"> <li>► No (default)</li> <li>► Yes</li> </ul>	If set to <b>Yes</b> , users can be added to the global auditors role and will have system-wide read access. If set to <b>No</b> , users can be added into the auditors role at the individual business object level to restrict an auditor’s access to a particular part of the organizational hierarchy.

### 3.3.2 Customizing the IBM Workplace for Business Controls and Reporting labels

In this section, we examine how labels, keywords, and messages can be customized using the IBM Workplace for Business Controls and Reporting administrative Label Manager functionality. Keep in mind that no new fields can be added. In many cases, however, existing labels can be changed as long as changing the label does not affect the programming context. Labels can be field names, object names, column values, drop-down keywords values, button text, message components, and so on. Also, for keywords fields, the drop-down list values can be changed and new drop-down list values can be added to the list. Drop-down values can also be removed from keyword fields. Label Manager has provisions to manipulate labels for any of the IBM Workplace for Business Controls and Reporting supported language locales.

The Customize Label portlet has three distinct areas:

- ▶ Add labels: To add new drop-down values to existing keyword fields
- ▶ Modify labels: To change existing labels
- ▶ Remove labels: To remove existing or custom-added drop-down values from keyword lists

**Note:** In IBM Workplace for Business Controls and Reporting Version 2.5.1, the Label Manager is also used to provide labels so that custom reports can be made user accessible from the IBM Workplace for Business Controls and Reporting Reports tab. For details about adding custom reports to the user interface, refer to “Making the new report available through the Workplace for Business Controls and Reporting interface” on page 209.

#### Changing existing labels

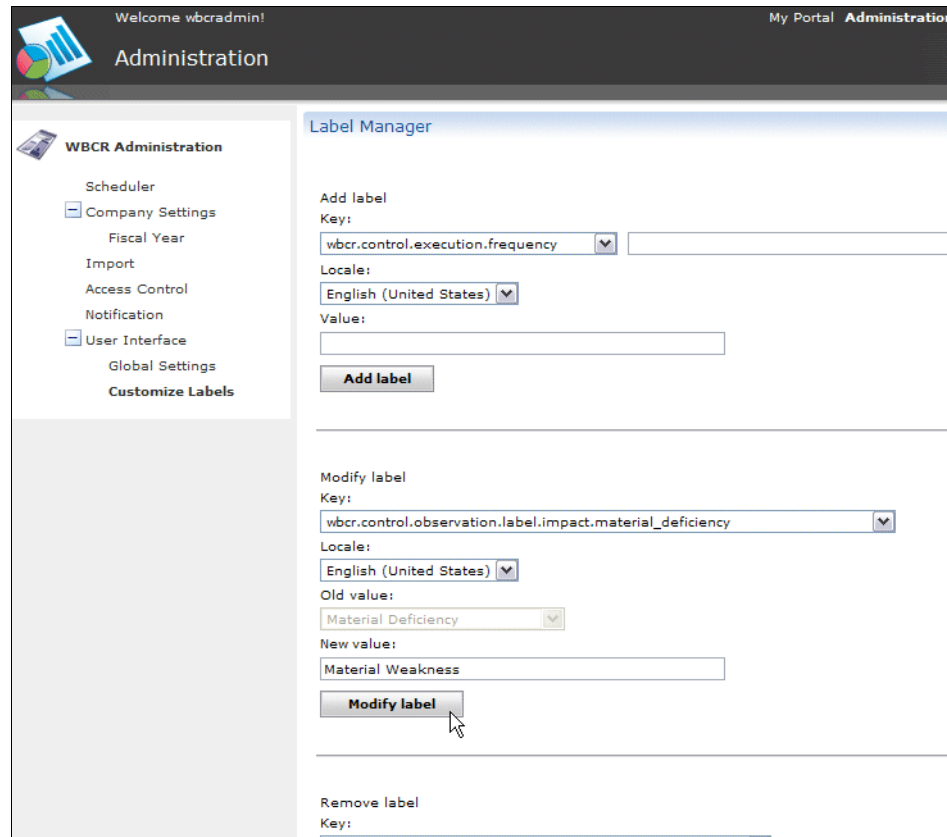
To change an existing label, you first need to find the internal key for the label. After you get familiar with the application and internal keys, you might just want to scroll the list of internal keys that can be changed to find the relevant ones. See “Displaying internal keys for labels” on page 141 for instructions about how the internal keys can be displayed in the user interface to help you determine which keys need to be modified.

In the next example, we change the default label *Material Deficiency* used in the Control Observations Impact field to *Material Weakness*, a term much more commonly used.

To change the label, perform the following steps (see Figure 3-18 on page 149):

1. Select the **wbcr.control.observation.label.impact.material\_deficiency** label from the drop-down list in the Modify label section.

2. Select the locale (the default is English).
3. Provide a New value for the label, Material Weakness.
4. Click **Modify label**.



Welcome wbcrcradmin! My Portal Administration

**Administration**

**WBCR Administration**

- Scheduler
- Company Settings
  - Fiscal Year
  - Import
  - Access Control
  - Notification
- User Interface
  - Global Settings
  - Customize Labels**

**Label Manager**

**Add label**

Key: wbcrcr.control.execution.frequency

Locale: English (United States)

Value:

**Add label**

**Modify label**

Key: wbcrcr.control.observation.label.impact.material\_deficiency

Locale: English (United States)

Old value: Material Deficiency

New value: Material Weakness

**Modify label**

**Remove label**

Key:

Figure 3-18 Changing an existing label

A message (as displayed in Figure 3-19) appears at the top of the window to indicate whether the label was successfully updated. Version = -1 indicates that this label has been changed in the current version of the data set. Previous versions of the IBM Workplace for Business Controls and Reporting data set will have the original label.

The label of key = wbcrcr.control.observation.label.impact.material\_deficiency, locale = English (United States), value = Material Weakness, versionId = -1 has been modified successfully.

Figure 3-19 Message indicating that the label was successfully changed

Check that the label changed in the Impact field on the Control Observation window and also in the Executive View, the Observations and Recommendations report, and the Heat Map Details report (a drill-down from the COSO Heat Map report).

If you need to change a term that references a standard IBM Workplace for Business Controls and Reporting object type (for example, change the term *Subprocess* to *Transaction* to match the corporate terminology), there is a large number of labels that need to be adapted, including the object type label itself, button labels, references to the term in messages, column headings, administrative windows, reports, and so on. In this example, it adds up to approximately 45 label changes for one language only.

**Tip:** To change a label such as Subprocess, which is referenced in numerous places, start by scrolling down the list of internal keys, select any key that has subprocess as part of the dotted notation, and change the value appropriately.

Next, step through all the portlets on all the tabs and generate samples of all reports to check whether you missed any references.

Use the global settings to switch the display to show internal keys if necessary to determine which additional labels to change.

## Adding labels

The Add labels section on the Label Manager window enables you to add new drop-down values to existing keyword fields. To extend on the previous example, we add a new value for *Inconsequential* to the Impact field on the Control Observation window. The current values are:

- ▶ N/A
- ▶ Deficiency
- ▶ Significant Deficiency
- ▶ Material Weakness (the value modified in “Changing existing labels” on page 148)

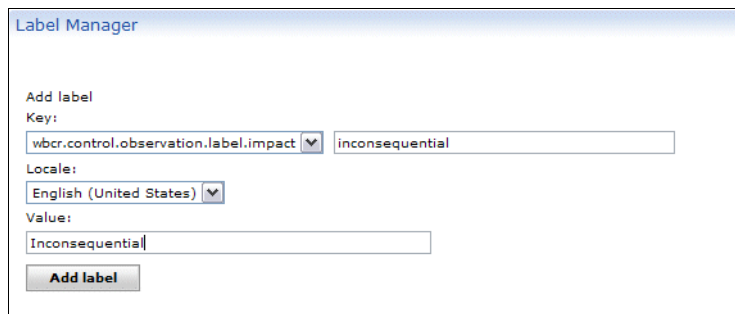
To add a new label, perform the following steps (see Figure 3-20 on page 151):

1. In the Add label field, locate the internal key prefix for the field, **wbcr.control.observation.label.impact**.
2. Add a new suffix for the label, `inconsequential`.

**Note:** The following restrictions apply to the suffix:

- ▶ The suffix key of the label must be composed of the characters a-z, A-Z, -, \_ and 0-9.
- ▶ The suffix key of the label must not include the single quotation mark character.
- ▶ The suffix key of the label must not include the backslash character.
- ▶ Do not start the suffix with a dot; it will automatically be added.
- ▶ The maximum length of a complete key (prefix and new suffix) cannot exceed 128 characters.

3. Select the language locale (the default is English).
4. Enter the new Value for this label, `Inconsequential`.
5. Click **Add label**.



The screenshot shows a 'Label Manager' window. Under the 'Add label' section, there is a 'Key:' label followed by a dropdown menu currently showing 'wbcr.control.observation.label.impact'. To the right of the dropdown is a text input field containing the word 'inconsequential'. Below this is a 'Locale:' label followed by a dropdown menu showing 'English (United States)'. Underneath is a 'Value:' label followed by a text input field containing 'Inconsequential'. At the bottom of the 'Add label' section is a button labeled 'Add label'.

Figure 3-20 Adding a new label

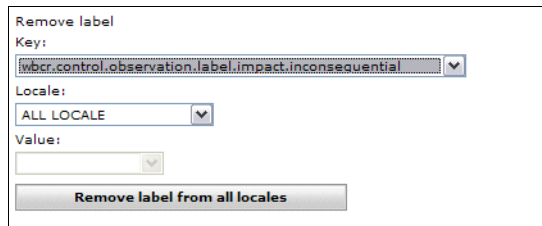
In order make this change complete throughout the entire application, we have to update some of the reports, such as Executive View, Observations and Recommendations, and Heat Map, to see the addition of the new value. Refer to Appendix B, “Adding custom reports” on page 201 for ideas about how to get started.

## Removing labels

Only labels that have the prefixes, which can be added in the Add label section, can be removed. Deleting such a label removes the value from the drop-down list. If a label gets dropped from the system, but users had previously selected that value, it will show up as ?? in the interface.

To remove a label, perform the following steps (see Figure 3-21):

1. Select the label to be removed from the list under the Remove label, for example, **wbcr.control.observation.label.impact.inconsequential**.
2. Select a specific language locale, or leave the default to remove the label for all languages at once.
3. Click **Remove label from all locales**.



Remove label

Key:  
wbcr.control.observation.label.impact.inconsequential

Locale:  
ALL LOCALE

Value:

Remove label from all locales

Figure 3-21 Removing a label

## 3.4 Configuring notifications and alerts

IBM Workplace for Business Controls and Reporting provides an elaborate set of e-mail notification rules that can be configured by the Workplace for Business Controls and Reporting administrator. The e-mail notifications help keep Workplace for Business Controls and Reporting users up-to-date on progress and changes in the objects for which they have responsibilities. The e-mail alerts can also inform the relevant stakeholders about control evaluations that are due or overdue. If set up the right way, the mail notifications and alerts will help align the workflow across the Workplace for Business Controls and Reporting stages of scoping, documentation, evaluation, and monitoring. The actual message content for the different types of notifications and alerts can be customized through the Label Manager (3.4.4, “Customizing mail messages” on page 157).

### 3.4.1 Active versus passive notifications

There are two types of mail notification rules:

- *Active* rules are triggered when changes are made to objects. The active component of the Notification Manager sends e-mails to the relevant stakeholders immediately. An example of an active mail rule is a subprocess owner changing a risk rating that sends e-mail notifications to the owners of controls that mitigate that risk.

- ▶ *Passive* rules are tracked on a daily basis by the asynchronous component of the Notification Manager and sends the due and overdue notifications if the associated rules are enabled. An example of a passive rule is control owners are notified 10 days before a control evaluation is due, while subprocess owners are notified one day after a control evaluation was due. Scheduling of the passive task is done through the Scheduler component in the IBM Workplace for Business Controls and Reporting administration, as described in 3.7.2, “Scheduling mail notifications” on page 184.

### 3.4.2 Defining the SMTP server

To set up or make changes to the SMTP server, perform the following steps:

1. Navigate to **WBCR Administration** → **Notifications**.

**Note:** In IBM Workplace for Business Controls and Reporting V2.5 and IBM Workplace for Business Controls and Reporting V2.5.01, the SMTP server settings are part of the same portlet where the mail rules are configured. In IBM Workplace for Business Controls and Reporting V2.5.1, these functions are separated such that configuring mail rules remains a Workplace for Business Controls and Reporting administrative task performed through the Settings tab, while defining the SMTP server is considered a WebSphere Portal administrative task accessible through the Portal Administration page.

2. Scroll to the bottom of the window.
3. Enter the SMTP mail server address (for example, `acmemailserver.acme.com`).
4. Enter the SMTP mail server password if one is required. This is the password associated with the administrator's e-mail address.
5. Enter the SMTP mail server port number. (Enter -1 to use the default SMTP port.)
6. Enter the administrator's e-mail address. This is the person who will appear in the From line of e-mails sent to users, for example, `wbcradmin@acme.com`; John Doe `<wbcradmin@acme.com>; "John Doe" <wbcradmin@acme.com>`.
7. Click **Apply** to apply the changes.

### 3.4.3 Enabling mail rules

**Note:** After installation, all mail rules will be disabled by default. Caution is warranted when enabling rules, because the system might send large volumes of mail messages depending on the number of rules enabled, the types of recipients defined, and the level of activity in the database. Typically, during the documentation stage or initial stages of populating the system through imports, very few rules should be enabled to limit the number of messages being sent.

Mail rules are defined per object type. Figure 3-22 shows the Notification portlet with the different object types as the tabs shown across the top of the portlet.

The screenshot displays the 'WBCR - Notification Manager' window. At the top, a message states: 'To set the notification rules for changes on different item types, please click on the following tabs:'. Below this is a horizontal tab bar with the following tabs: 'Business Unit', 'Process', 'Subprocess', 'Objective', 'Risk', 'Controls', 'Test Procedure', 'Import', and 'Control Evaluation'. The 'Business Unit' tab is selected and highlighted. The main content area is titled 'Send e-mail when a Business Unit has changes on one or more properties:'. It contains four sections, each with a list of recipient roles in a scrollable box: 'Name changes, send to Recipient(s):', 'Owner changes:', 'Delegate changes:', and 'Scope changes:'. Each list includes 'Business Owner', 'Process Owner', 'Control Owner', 'Subprocess Owner', and 'Procedure Owner'. At the bottom, there are three input fields: 'SMTP Mail server address' (containing 'acmemailserver.acme.com'), 'SMTP Mail server password' (empty), and 'Administrator's e-mail address' (containing 'wbcadmin@acme.com'). A 'Port#' field with the value '-1' is also present.

Figure 3-22 Enabling mail notification rules

For each object type, a number of rules can be enabled based on attribute changes. One or more recipient types can be selected for each rule.



Owners of the various business objects (business unit, process, subprocess, control, procedure) can receive notifications for the field or attribute changes shown in Table 3-4.

*Table 3-4 Field or attribute changes*

<b>Object type</b>	<b>Field changes</b>
Business Unit	<ul style="list-style-type: none"> <li>▶ Name</li> <li>▶ Owner</li> <li>▶ Delegates</li> <li>▶ Scope</li> </ul>
Process	<ul style="list-style-type: none"> <li>▶ Name</li> <li>▶ Owner</li> <li>▶ Delegates</li> <li>▶ Documentation Complete</li> </ul>
Subprocess	<ul style="list-style-type: none"> <li>▶ Name</li> <li>▶ Owner</li> <li>▶ Delegates</li> <li>▶ Financial Linkage changes</li> </ul>
Objective	<ul style="list-style-type: none"> <li>▶ Name</li> </ul>
Risk	<ul style="list-style-type: none"> <li>▶ Name</li> <li>▶ Rating</li> <li>▶ Objective-Risk</li> </ul>
Control	<ul style="list-style-type: none"> <li>▶ Name</li> <li>▶ Owner</li> <li>▶ Delegates</li> <li>▶ Rating</li> <li>▶ Control Type</li> </ul>
Test Procedure	<ul style="list-style-type: none"> <li>▶ Name</li> <li>▶ Owner</li> <li>▶ Delegates</li> <li>▶ Sample Size</li> <li>▶ New Sample Added</li> </ul>
Import	<p>Changes caused by reimport (dynamic update) New Catalog or New Catalog is reimported</p>
Control Evaluations (passive)	<p>1, 10, 30 days before due 1, 10, 30 days after due</p>

## Example

The following example shows how to set up a mail rule that will inform the subprocess owners and control owners when a process owner changes the Documentation Complete value from No to **Yes** for a specific process (for example, Accounts Receivable). Assuming that the global setting for **documentation complete** is enforced (see 3.3.1, “Global settings” on page 135), control owners will know that they can start marking controls For Evaluation, at which point, actual testing can start. To set up the mail rule, perform the following steps (see Figure 3-23):

1. Navigate to **WBCR Administration** → **Notifications**.
2. Go to the Process tab.
3. From the Documentation complete changes list, select **Control Owner**, and then hold down the Control key and select **Subprocess Owner**.
4. Click **Apply**.

The screenshot shows the 'WBCR - Notification Manager' window. At the top, a message says: 'To set the notification rules for changes on different item types, please click on the following tabs:'. Below this is a tabbed interface with tabs for 'Business Unit', 'Process' (selected), 'Subprocess', 'Objective', 'Risk', 'Controls', 'Test Procedure', 'Import', and 'Control Evaluation'. The main content area is titled 'Send e-mail when a Process has changes:'. It contains four sections, each with a list of roles to be notified:

- Name changes, send to Recipient(s):**
  - Business Owner
  - Process Owner
  - Control Owner
  - Subprocess Owner
  - Procedure Owner
- Owner changes:**
  - Business Owner
  - Process Owner
  - Control Owner
  - Subprocess Owner
  - Procedure Owner
- Delegate changes:**
  - Business Owner
  - Process Owner
  - Control Owner
  - Subprocess Owner
  - Procedure Owner
- Documentation complete changes:**
  - Business Owner
  - Process Owner
  - Control Owner
  - Subprocess Owner
  - Procedure Owner

At the bottom of the window are three buttons: 'Select all', 'Clear all', and 'Apply'.

Figure 3-23 Sample mail rule for Documentation Complete changes

With this rule enabled, as soon as Matsihuru Adachi, a process owner, saves the Accounts Receivable process object after switching the Documentation Complete field from No to **Yes**, the Notification Manager component checks

whether the rule is enabled, who to inform, constructs the relevant message, and sends it through the SMTP mail server.

Cathy Cee, one of the control owners defined for the accounts receivable process, receives the message shown in Figure 3-24.

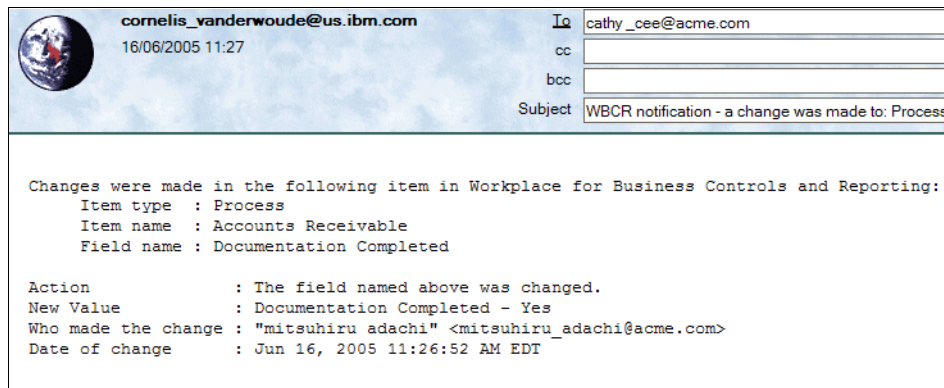


Figure 3-24 Sample mail message sent after Documentation Complete was changed

**Tip:** When new objects are created, the active rules are also triggered. To inform a user that he or she is now the owner of a newly created process, you enable the rule to notify process owners when the Owner field for the process object type changes.

### 3.4.4 Customizing mail messages

There is some capability to control the contents of the subject and body of the messages that are sent by customizing labels with the Label Manager component. All labels related to the mail messages start with the dotted notation prefix *wbcr.notifications.label*.

The overall structure of the messages is fixed. You cannot change the order in which the various label elements are being used to construct the message. Nor can you change which label elements will be included in the message. You can, however, change the label values as long as you keep in mind that many of the labels are used across different notification events, that is, in many cases, the labels have to be sufficiently generic to be used across multiple events.

If you need to find out which label elements are used in a specific message, use the global settings to display the keys rather than the values, and then make a change so that a sample message will be sent. The mail notification will be sent with the label content rather than the actual values, so you will be able to see

what can be changed and which labels to look for in the Label Manager, as shown in Example 3-1. The elements shown in **bold** can be customized but will be applied to *all* messages sent because of attribute changes. Elements in ***bold italic*** can be customized and are specific to the message sent because of the change in the Documentation Complete field.

All messages and alerts have a label that enables you to add a piece of generic text at the bottom of the body content, in this case, whatever text string you apply as the value for the `wbcr.notifications.label.email.body.extra_active` label (for, example, Help ACME become 100% compliant by year end!) will be appended to all actively triggered messages.

---

*Example 3-1 Message sent with labels rather than values*

---

Subject:

**wbcr.notifications.label.email.subj.prefix**

**wbcr.notifications.label.email.subj.change:** `wbcr.process.label.process -`

***wbcr.notifications.label.email.process\_doc\_complete***

Body:

`wbcr.notifications.label.email.body.intro`

`wbcr.notifications.label.email.body.item_type` `wbcr.process.label.process`

`wbcr.notifications.label.email.body.item_name` Accounts Payable

`wbcr.notifications.label.email.body.item_attr_type`

***wbcr.notifications.label.email.process\_doc\_complete***

`wbcr.notifications.label.email.body.action`

`wbcr.notifications.label.email.act.field_chg`

`wbcr.notifications.label.email.body.new_value`

**wbcr.notifications.label.email.process\_doc\_complete -**

`wbcr.process.select.doccomplete.yes`

**wbcr.notifications.label.email.body.who** "mitsuhiru adachi"

`<mitsuhiru_adachi@acme.com>`

**wbcr.notifications.label.email.body.when** Jun 16, 2005 2:04:43 PM EDT

`wbcr.notifications.label.email.body.extra_active`

---

## 3.5 Import

Most organizations already have large parts or all of their documentation and control matrixes completed. Some organizations might be migrating to IBM Workplace for Business Controls and Reporting from a spreadsheet-based method, others might be migrating from another vendor's or auditor's tool.

In this section, we discuss two different ways to import existing data into the IBM Workplace for Business Controls and Reporting environment:

► Catalog import

A catalog is a centralized repository of process, subprocess, objective, risk, control, and procedure information. A catalog is first loaded into the system by the Workplace for Business Controls and Reporting administrator. After it is loaded, business unit owners can select processes and subprocesses from any of the catalogs made available and associate an instance of the selected process tree with the business unit.

We recommend the use of catalogs when best practices, company standards, and guidelines need to be propagated across the enterprise. Obviously, catalogs are useful when the same processes and related controls are documented and evaluated in multiple locations.

The catalog import also supports the concept of *dynamic updates*, allowing changes to the catalog to be automatically propagated to instances imported from those catalogs, helping reduce maintenance efforts and provide sustainable compliance over time.

► Back-end data import

The back-end data import enable you to batch-load large numbers of spreadsheets containing process, subprocess, objective, risk, control, and procedure information. Unlike a catalog import, the back-end import does not require end-user interaction and data will automatically be associated with designated business units. After the data is loaded, it can only be manipulated through the IBM Workplace for Business Controls and Reporting user interface; dynamic updates cannot be applied to data imported this way.

We recommend the use of the data import mechanism when large amounts of data already exist or will be migrated from other tools. In general, the data import is the fastest way to populate the IBM Workplace for Business Controls and Reporting system.

Populating the spreadsheets with data obviously is not strictly a responsibility of the IBM Workplace for Business Controls and Reporting administrator and will usually be done by a combination of people in the compliance project office, internal audit, and business unit managers. A description of the spreadsheet templates is included here for IBM Workplace for Business Controls and Reporting administrators to understand the structure and restrictions to help identify potential errors in the spreadsheet when it is loaded into the system.

**Note:** IBM Workplace for Business Controls and Reporting catalogs can be defined in a Microsoft Excel template, or alternatively as XML. We have not seen many instances where XML is used as a way to express control matrixes. Furthermore, XML-based catalogs in IBM Workplace for Business Controls and Reporting do not support the dynamic update concept and are not discussed as part of this Redpaper. See the IBM Workplace for Business Controls and Reporting Information Center for more information about XML schemas.

### 3.5.1 Catalog import

In this section, we describe:

- ▶ Creating the control matrix in the IBM Workplace for Business Controls and Reporting spreadsheet format.
- ▶ Importing the catalog into IBM Workplace for Business Controls and Reporting.
- ▶ Importing a process instance from the catalog and associating it with a business unit (see also “Importing a process” on page 58).
- ▶ Reimporting a catalog after making changes to the spreadsheet.
- ▶ Effects of dynamic update.

#### Catalog import spreadsheet template

A spreadsheet template with sample data is included as additional material with this Redpaper. See Appendix C, “Additional material” on page 221 for more information. Download the CatalogSample.xls file.

After downloading this file, open the CatalogSample file in Microsoft Excel. You can remove all the data from the three sheets except the column headers. Save the blank template. In this section, we also refer to some of the sample data.

#### Depth-first traversing of tree

Consider that your process structure looks similar to what is displayed in Figure 3-25 on page 161. It is important to understand that the import routine follows a *depth-first* traversing of the tree, that is, in your spreadsheet, all the elements of process 1 are defined above the elements for process 2. Likewise, all the elements for subprocess 1.1 are defined above the elements for subprocess 1.2.

Partial tree structures can be imported, as long as the hierarchical order is followed. As an example, it is possible to define only a process, a subprocess, and three objectives for that subprocess, and then continue with the next

subprocess. This enables you to import documentation starting points but leave the risk identification and subsequent documentation of mitigating controls to the process owners after an instance of the partial structure has been associated with a business unit.

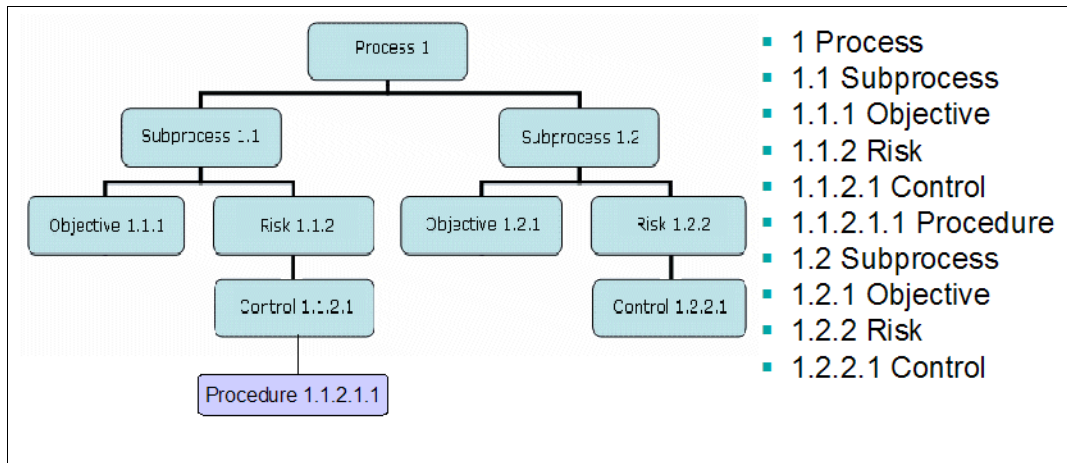


Figure 3-25 When importing tree is traversed depth-first

## Understanding the risk-objective relationship

It is important to also understand that the relationship between risks and objectives is not a parent-child relationship, even though the spreadsheet layout and the IBM Workplace for Business Controls and Reporting navigation tree might suggest this. As displayed in Figure 3-25, in the underlying IBM Workplace for Business Controls and Reporting data model, *both* risks and objectives are child objects of the subprocess. The relationship, which risk or risks have been identified for which objective or objectives, is established through *association*. This allows a risk to be associated with multiple objectives within the same subprocess and, vice versa, one objective to be associated with multiple risks within the same subprocess.

## Filling in the spreadsheet

Data in the spreadsheet for a catalog import is laid out *vertically*. Each row represents an object type and its attributes. Figure 3-26 on page 162 shows a high-level abstraction of the spreadsheet.

Type	Name	Objective/Risk
Process	Process 1	
Subprocess	Subprocess 1	
Objective	Objective 1	
Objective	Objective 2	
Risk	Risk 1	4,5
Control	Control 1	
Control	Control 2	
Procedure	Procedure 1	
Risk	Risk 2	4
Control	Control 3	
Subprocess	Subprocess 2	

Figure 3-26 Abstracted view of data layout for catalog import

When imported, this data creates the following structure underneath the business unit where the instance is imported:

Process 1 has two subprocesses. Subprocess 1 has two objectives. Risk 1 is associated with both objectives (on rows 4 and 5). Risk 1 has two defined controls. Control 2 has one defined test procedure. Risk 2 is associated with objective 2 (on row 5). Risk 2 has one defined control.

We now discuss in detail the columns, possible values, and restrictions when filling out the Control Catalog Sheet of the spreadsheet template:

- Column A: Type
  - Required: Yes.
  - Possible values: Process, Subprocess, Objective, Risk, Control, Procedure.
- Column B: Outline
  - Required: No.
  - Applies to: All object types.



- This can be any outline scheme the organization wants to use. Often, this is used to cross-reference pieces of documentation, such as flowchart diagrams that will be attached to the subprocess.
  - We recommend using an outline numbering scheme that can be used to uniquely identify each object within a process. If an outline exists, the dynamic update will use it to identify imported objects that potentially need updating. If there is no outline, the dynamic update routine will use the object's name, essentially making it impossible to change an object's name through the dynamic update.
- **Column C: Name**
- Required: Yes.
  - Applies to: All object types.
  - The maximum number of characters is 512. If more characters are entered, these will not be imported. Consider setting up your template to validate the text length in column C (see Figure 3-27):
    - i. Select **Column C**.
    - ii. Select **Data** → **Validation**.
    - iii. In the Validation criteria, select **Text length**, **less than**, and **512** so that the text length will be less than 512.
    - iv. Click **OK**.

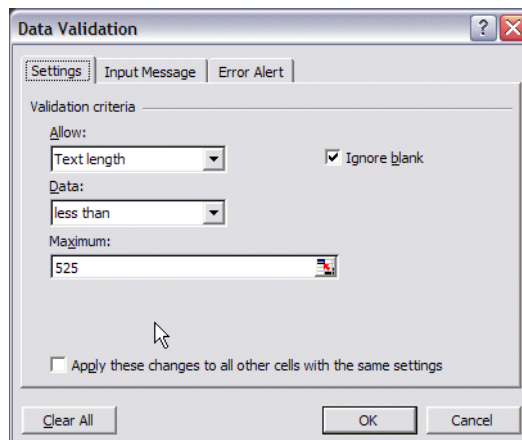


Figure 3-27 Validating length in the Name column

- **Column D: Description**
- Required: No.
  - Applies to: All object types.

- The maximum number of characters is 1024. Consider setting up a validation of the number of characters as part of the template.
- ▶ Column E: Locked
  - Required: No.
  - Applies to: All object types.
  - Possible values: Yes, No (default).
  - An organization might want to lock down the definition, name, and attributes of specific objects in the catalog. After being imported from a catalog, a locked object cannot be modified through the IBM Workplace for Business Controls and Reporting interface. Updates to these objects are only possible by making changes in the spreadsheet and reloading it into IBM Workplace for Business Controls and Reporting. The dynamic update process applies the changes to the locked objects that have already been imported.
- ▶ Column F: Owner
  - Required: No.
  - Applies to: Process, Subprocess, Control, Procedure.
  - Possible values: Only one value allowed. If left blank, ownership will be determined by the global setting for the default process owner (Version 2.5) or the default control owner (Version 2.5.1 only). The user name can be entered as an e-mail address (jim\_doe@acme.com), the short ID (jim\_doe), or the fully qualified name (uid=jim\_doe, cn=user, dc=acme, dc=com).

**Note:** For control catalogs that are intended to be used in multiple locations across the enterprise, the Owner and Delegates fields will most likely be left blank, so ownership is determined during and after a business unit owner performs an import and associates a process instance with the business unit. In other cases, however, a control catalog might be very specific to particular business unit such that ownership can be predefined and maintained as part of the catalog.

- ▶ Column G: Delegates
  - Required: No.
  - Applies to: Process, Subprocess, Control, Procedure.
  - Possible values: Multiple values are allowed. The user name can be entered as an e-mail address (jim\_doe@acme.com), the short ID (jim\_doe), or the fully qualified name (uid=jim\_doe, cn=user, dc=acme, dc=com). Multiple names are separated by semicolons.

- ▶ Column H: Procedure.Frequency
  - Required: *Not* used in this release.
  - Leave the column blank.
- ▶ Column I: Control.Component
  - Required: No, if left blank, value will be imported as None.
  - Applies to: Control.
  - Possible values: Control Environment, Risk Assessment, Control Activities, Information/Communication, Monitoring.

**Note:** If additional labels have been added for the COSO component field through the Label Manager (see “Adding labels” on page 150), these additional choices are also valid options. For example, Objective Setting, Event Identification, and Risk Response from the COSO ERM framework can be included this way.

- Consider adding validation for this column by listing the possible values. In the Source field, list the possible options, separated by commas, as shown in Figure 3-28.

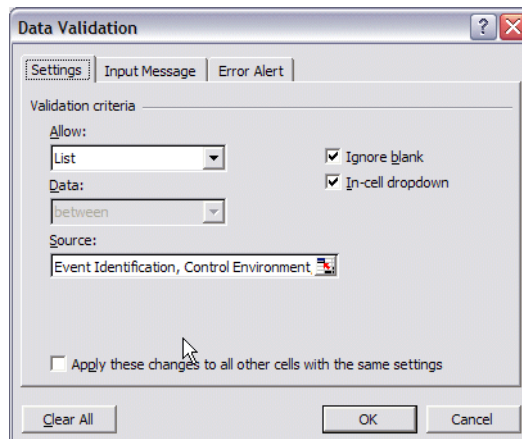


Figure 3-28 Adding Validation to the Spreadsheet column

- ▶ Column J: Control.Type
  - Required: No, if left blank, value will be imported as None.
  - Applies to: Control object only.

- Possible values: Authorization, System Configuration, Exception / edit report, Interface / Conversion, Key Performance Indication, Management Review, Reconciliation, Segregation of Duties, System Access.

**Note:** Exception / edit report, Interface / Conversion must be used exactly as shown: Lowercase e in edit report and spaces around the /.

- If Label Manager was used to add custom values for the Type keywords field or to change existing keywords for this field, these are the values that can be entered in this column. Consider adding validation with the list of possible values, as described earlier for Control.Component.
- Columns K-P: Financial Assertions (completeness, existence, presentation, accuracy, valuation, ownership, presentation)

These six columns correspond to the six check marks for Financial Assertions on the control window.

- Required: No.
- Applies to: Control object only.
- Possible values: Yes, No.
- Column can be left blank, which is equivalent to a value of No.
- Column Q - Objective.Risks
  - Required: No.
  - Applies to: Risk object only.
  - Possible values: Any row number *above* this risk that refers to an objective will create an association between this risk and the objective. The objective has to be part of the *same* subprocess. One risk can be associated with multiple objectives within the same subprocess. Multiple row numbers are separated by commas or semicolons.
  - After importing a process from a catalog, a risk that was associated with an objective will show the check mark selected, as shown in Figure 3-29 on page 167.

**Note:** Moving, removing, inserting rows will affect the references.

Consider using formulas such as:

```
=ROW(A4) & “,” & =ROW(A18)
Result: 4,18
```

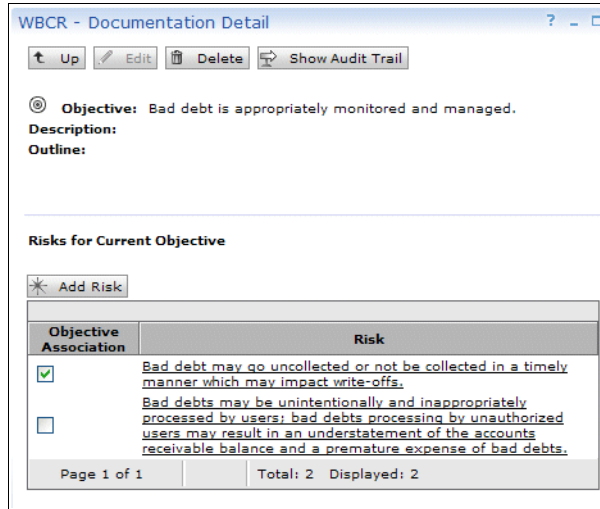


Figure 3-29 Objective-risk association after import from catalog

## Financial statement linkage

Optionally, the spreadsheet template can also be used to predefine the linkage between subprocesses and significant line items on the financial statements (income statement, balance sheet, and disclosures).

When the spreadsheet is loaded into IBM Workplace for Business Controls and Reporting by the administrator, the captions and line items will not be visible yet to end users. Only when a user imports a subprocess that had predefined linkage in the catalog will the captions and line items be created in the financial statement database tables and become visible on the Financial Reports tab.

The spreadsheet template contains three additional sheets for optional financial statements labeled: Income, Balance, Disclosure.

We now discuss the columns, possible values, and restrictions on these sheets:

- ▶ Column A: Type
  - Required: Yes.
  - Possible values: FinStmnt, Category, Caption, Subcaption.
  - Type = Category can only be used for the balance sheet (that is, if column H FinStmnt.Type contains Balance).
- ▶ Column B: Category Label
  - Required: Yes.
  - Applies to: Category, Caption, Subcaption.

- ▶ Column C: Balance1
  - Required: No.
  - Applies to: Subcaption.
- ▶ Column D: Balance2
  - Required: No.
  - Applies to: Subcaption.
- ▶ Column E: Locked
  - Required: No.
  - Possible values: Yes, No (default).
  - When Locked = Yes, values can only be changed through the dynamic update. After they are imported, values cannot be changed through the IBM Workplace for Business Controls and Reporting user interface.
- ▶ Column F: Subcaption.Significant
  - Required: No.
  - Applies to: Subcaption.
  - Possible values: Yes, No (default).
  - Subprocess linkage can only be established for subcaptions that are marked as Significant. We recommend that you only include those financial statement line items that are significant as part of the catalog.
- ▶ Column G: Subcaption.Subprocess
  - Required: No.
  - Applies to: Subcaption.
  - Possible values: Any row number that references a subprocess object on the Control Catalog Sheet. When a business unit or process owner imports the referenced subprocess, the corresponding category (balance sheet only), caption, and subcaption will be created on the relevant financial statement. The linkage between that subprocess and significant line item will also be created at that time.
  - A significant line item can be associated with multiple subprocesses on the Control Catalog Sheet but have to be part of the same spreadsheet. Multiple row numbers are separated by commas or semicolons.
  - Multiple significant line items can reference the same subprocess.

**Note:** Inserting, removing, or moving elements on the Control Catalog Sheet might have an impact on row number references.

- ▶ Column H: FinStmt.Type
  - Required: Yes.
  - Applies to: FinStmt only (that is, only requires a value if column A Type = FinStmt).
  - Possible values: Income, Balance, Disclosure.
- ▶ Columns I - L: *Not* used

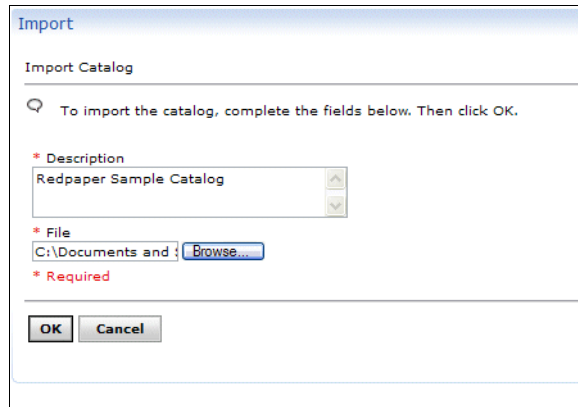
**Note:** There are new fields for Workplace for Business Controls and Reporting V2.5.1:

- ▶ Ref ID (mandatory unique identifier for non-financial data used in enhanced dynamic update model)
- ▶ Control.KeyControl
- ▶ Control.Fraud
- ▶ Control.PreventType
- ▶ Finstmt.Title3, Title4,
- ▶ Finstmt.SubTitle3, SubTitle4,
- ▶ Finstmt.Balance3, Balance4

## Importing the spreadsheet

To import a completed spreadsheet into IBM Workplace for Business Controls and Reporting, perform the following steps:

1. Navigate to **WBCR Administration** → **Import**.
2. Click **Import Catalog**.
3. Fill out a description in the Description field (for example, Redpaper Sample Catalog). The descriptive name you provide here will be visible to end users when they select a catalog from which to import. See Figure 3-30 on page 170.
4. Click **Browse** to select the spreadsheet from your local system.
5. Click **OK**.



**Import**

Import Catalog

To import the catalog, complete the fields below. Then click OK.

\* Description

\* File

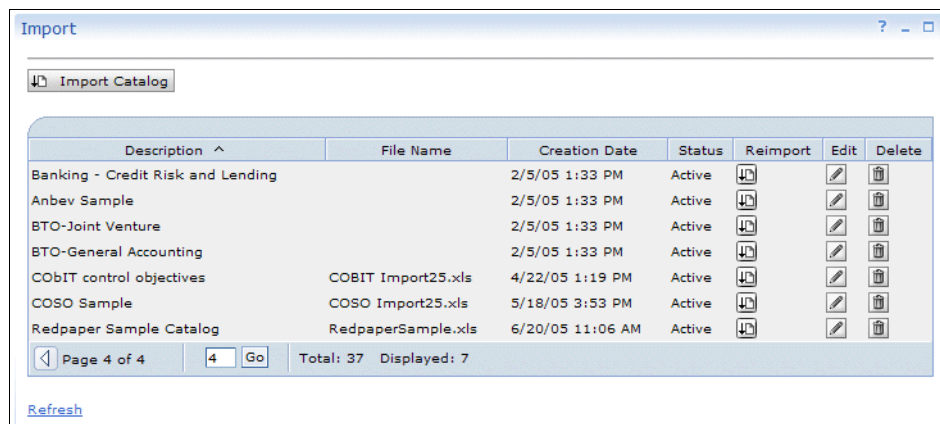
\* Required

Figure 3-30 Specifying new catalog to be imported

A message appears to inform you that the request has been sent to the server. You can click the **Back** link on this window to return to the list of catalogs. The new catalog will be appended as the last in the list. If necessary, use the page buttons at the bottom of the list to navigate to the last page in the list.

Click **Refresh** to check whether the catalog imported successfully. If it did, you will see the new catalog at the bottom listed as Active, as shown in Figure 3-31.

Business unit owners can now use the catalog to associate process instances with a business unit they own as described in “Importing a process” on page 58.



**Import**

Description ^	File Name	Creation Date	Status	Reimport	Edit	Delete
Banking - Credit Risk and Lending		2/5/05 1:33 PM	Active	<input type="button" value="Reimport"/>	<input type="button" value="Edit"/>	<input type="button" value="Delete"/>
Anbev Sample		2/5/05 1:33 PM	Active	<input type="button" value="Reimport"/>	<input type="button" value="Edit"/>	<input type="button" value="Delete"/>
BTO-Joint Venture		2/5/05 1:33 PM	Active	<input type="button" value="Reimport"/>	<input type="button" value="Edit"/>	<input type="button" value="Delete"/>
BTO-General Accounting		2/5/05 1:33 PM	Active	<input type="button" value="Reimport"/>	<input type="button" value="Edit"/>	<input type="button" value="Delete"/>
COBIT control objectives	COBIT Import25.xls	4/22/05 1:19 PM	Active	<input type="button" value="Reimport"/>	<input type="button" value="Edit"/>	<input type="button" value="Delete"/>
COSO Sample	COSO Import25.xls	5/18/05 3:53 PM	Active	<input type="button" value="Reimport"/>	<input type="button" value="Edit"/>	<input type="button" value="Delete"/>
Redpaper Sample Catalog	RedpaperSample.xls	6/20/05 11:06 AM	Active	<input type="button" value="Reimport"/>	<input type="button" value="Edit"/>	<input type="button" value="Delete"/>

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[Refresh](#)

Figure 3-31 New catalog successfully loaded and active

Depending on size of the catalog and system activity, it can take anywhere from 30 seconds to several minutes. If you do not see the new catalog after a couple of minutes, you might want to check the Scheduler, which will give you



information about the success or failure of the import task. Figure 3-32 shows a failed import task at the bottom of the list because required values (for example, the name of an object) were not specified. At that point, the Workplace for Business Controls and Reporting administrator checks the original spreadsheet for missing required values and performs the upload again after fixing the issue.

Event	Status	Frequency	Next Run	Last Run	Messages	Progress	Task Log	Actions
Version Data	✓	One time		2/5/05 2:04 PM	Task success			
Import Data	✓	One time		2/14/05 11:02 AM	Import task is finished			
	✓	One time		4/22/05 1:19 PM	Import task is finished			
	✓	One time		5/5/05 1:47 PM	Import task is finished			
	✓	One time		5/5/05 1:54 PM	Reimport task is finished			
	✓	One time		5/5/05 1:58 PM	Reimport task is finished			
	✓	One time		5/18/05 3:53 PM	Import task is finished			
	✓	One time		6/20/05 10:36 AM	One or more fields mandatory has no value			

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Figure 3-32 Checking catalog import status through the Scheduler

## Editing a catalog entry

A catalog entry can be edited to change the description or change its status from Active to Inactive and vice versa. An inactive catalog is not visible to end users for the process import.

To edit a catalog entry, perform the following steps:

1. Navigate to the catalog entry by selecting **WBCR Administration** → **Import**.
2. Click the **Edit** icon next to the catalog entry to be edited.
3. Change the Description if necessary, as shown in Figure 3-33 on page 172.
4. Change the Status if necessary.
5. Click **OK**.

Figure 3-33 Editing a catalog entry

## Reimporting a spreadsheet and dynamic update

IBM Workplace for Business Controls and Reporting allows changes made to a spreadsheet to be reimported so that the catalog tables are updated. A reimport process also updates any process instance (and its related business elements) a business unit owner had associated with a business unit by importing it from that catalog. The concept of propagating catalog changes across imported instances, is called *dynamic update*. The following restrictions apply:

- ▶ In order not to overwrite and undo any changes made through the IBM Workplace for Business Controls and Reporting application interface by end users, *only* objects that have not changed since being imported will be affected by the dynamic update. For example, if a user had modified a risk description, a change to that risk in the catalog will not be propagated to that particular imported risk instance.
- ▶ New objects added to the catalog will not be propagated to imported instances. For example, adding a new subprocess to the catalog will not show up under a process instance that was already imported from that catalog.
- ▶ Objects that are removed from the catalog will not be removed from imported instances. For example, removing a control from the catalog will not remove any imported instances of that control.

To reimport a catalog, perform the following steps:

1. Navigate to **WBCR Administration** → **Import**.
2. Navigate to the page that lists the catalog entry to be reimported.
3. Click the **Reimport** icon next to the catalog entry.
4. If wanted, change the Description field.

5. Browse for the updated spreadsheet file and select it.
6. Click **OK**.
7. Click the **Back** link and **Refresh** to see the updated status. If necessary, check the status of the import task through the Scheduler.

**Note:** When using the Workplace for Business Controls and Reporting V2.5.1 spreadsheet template, new dynamic update rules apply:

- ▶ If new objectives, risks, controls or procedures are added to a catalog and reimported, these new items will be added to the Workplace for Business Controls and Reporting associated data if the parent of those items had already been associated with an organization unit.
- ▶ New processes and subprocesses will not be added to the Workplace for Business Controls and Reporting associated data. They must be associated through the UI.
- ▶ Imported items that were subsequently edited in the user interface will only be marked as changed (“deviated”) if importable fields were modified. If non-importable fields were modified, the item is still eligible for dynamic update.

## Sending out notifications when catalogs are imported

Business unit owners and process owners can be automatically informed when a catalog is imported or reimported. There are two notification events related to catalog reimports, as shown in the Notification Manager window in Figure 3-34.

Figure 3-34 Import notification

If the second setting, “New Catalog import or existing Catalog reimport,” is enabled, business unit owners will be informed when a new catalog is loaded the very first time and business unit owners or impacted process owners, or both, will be informed when a catalog is reimported.

If the first setting is enabled, “Changes caused by a reimport to Process or Subprocess, send to Recipient(s),” impacted business unit owners or process owners, or both, will receive a separate message for any object possibly impacted by a catalog change. In the example scenario (in the following Example box), in which three control descriptions changed, the process owner receives messages not only to notify about the changes made to the individual controls but also separate messages about the potential objectives, risks, subprocesses, financial statement line items, and process that might have been impacted.

**Example:** The process owner imported an instance of process ABC from a catalog. After importing, the process owner assigns control ownership for control X to Jim Doe. The process owner also makes a change to control Y by marking it as an Automated Control.

Next, the spreadsheet is updated and changes are made to controls X, Y, and Z. After the Workplace for Business Controls and Reporting administrator reimports the catalog, only the change in control Z will be reflected under the imported instance of process ABC. Impacted owners might receive e-mail notifications about changes.

**Note:** In the current release, we recommend that you do not enable notifications caused by a *reimport to process or subprocess*. The number of messages to a single recipient cannot be restricted, nor is the content of the messages particularly useful. Future releases of the product will build on the foundation and address this issue more effectively.

### 3.5.2 Data import

The back-end data import utility is used to do a batch upload of process and control data and automatically associate the process trees with the relevant business units. Data is defined using the Control Import Spreadsheet template which uses a very different lay-out and supports different attributes to be uploaded. The Data Import utility, however, does not support subsequent dynamic updates; data is loaded directly into the back-end IBM Workplace for Business Controls and Reporting data model without creating separate catalog tables.

Many customers will already have large parts of their controls documentation prepared in spreadsheet formats. In most cases, the layout used will more closely match the IBM Workplace for Business Controls and Reporting data import format than the hierarchically organized catalog format. In those cases, when an organization needs to get up-and-running as quickly as possible and

dynamic update is not a current priority, it makes sense to use the back-end data import.

## Obtaining the data import utility

The download package for the data import utility contains the spreadsheet template, the download code, the batch file, and extensive instructions for set-up, data format, running the utility, and logging. For that reason, in this Redpaper, we do not discuss the import process and data format in detail and only provide a number of hints and issues requiring special attention.

**Note:** You can download the data import utility from:

[ftp://ftp.software.ibm.com/software/lotus/fixes/workplace/WBCR/wbcr2.5\\_import.zip](ftp://ftp.software.ibm.com/software/lotus/fixes/workplace/WBCR/wbcr2.5_import.zip)

Consider the following items:

- ▶ The utility needs to be run by an IT administrator. In general, this will not be the IBM Workplace for Business Controls and Reporting administrator. The user performing the import needs to have IBM Workplace for Business Controls and Reporting database administration rights and access to the file system of a server or workstation with the DB2 Client, DB2 Administrator, or DB2 Development Client installed.
- ▶ Data in the spreadsheet is laid out *horizontally*, where each row essentially represents a control or a test procedure. On each row, the related process, subprocess, objective, and risk data is repeated. Figure 3-35 on page 176 shows an abstraction of data layout in this format.

BU	Process	Sub Process	Objective	Risk	Control	Procedure
BU1	Process1	SubProc1	Objective1	Risk1	Control1	
BU1	Process1	SubProc1	Objective1	Risk1	Control2	
BU1	Process1	SubProc1	Objective2	Risk2	Control3	
BU1	Process1	SubProc2	Objective3	Risk3	Control4	Proc1
BU1	Process1	SubProc2	Objective3	Risk3	Control4	Proc2

Figure 3-35 Abstracted view of data in Import template

- ▶ When imported, the structure shown in Figure 3-35 creates:  
 Process 1 under BU 1. Process 1 has two subprocesses. Subprocess 1 has two objectives. Risk 1 will be associated with objective 1. Risk 1 has two defined controls. Risk 2 is associated with objective 2. Risk 2 has one control. Subprocess 2 has one objective that is associated with risk 3. Risk 3 has one control defined, and for this control, there are two defined test procedures.
- ▶ Owners for the different object types *must* be defined. The default is to specify user names in e-mail address format (jim\_doe@acme.com). If you want to specify owners in UID format (jim\_doe), change the included properties file bcrimporttoolconfig.properties entry for ldapmapfrom=mail to ldapmapfrom=uid.
- ▶ Financial statement linkage cannot be imported using this method.
- ▶ Business unit structure cannot be imported. The business units in column A of the spreadsheet for which the process and control information will be created must already exist in IBM Workplace for Business Controls and Reporting.
- ▶ Unlike the catalog import format, the data import format enables you to predefine the For Evaluation option on controls in column Q.
- ▶ Unlike the catalog import format, the data import format enables you to predefine the Manual/Automated attribute for controls (column AB), and for automated controls, the Control Execution Description (column AC).

- ▶ Unlike the catalog import format, the data import format enables you to predefine Procedure Sample Size (column AI).
- ▶ Control Evaluation Test Frequency (column AA) and Procedure Frequency (column AG) are not currently used.
- ▶ The import utility performs *strict* validation on keywords allowed. Customized labels (modified or added) *cannot* be imported as is the case with the catalog import format.

## 3.6 Versioning and archiving

Depending on regulations and policies, a customer might, for example, want to keep two years' worth of data online and be able to go back to seven-year old data when necessary.

IBM Workplace for Business Controls and Reporting supports both *versioning* and *archiving*.

Versioning provides decision support over time series (versions). It also enables testing, evaluations, and auditing to continue in the previous version, while starting a new one. Each operating period (quarterly, semi-annually, or annually) can have a separate set of data records, each referred to as a *version*. Versions are kept in the online database until archived, and end users can switch to any previously created version in the online database.

Archiving takes one or more versions from the live system and exports each selected version, table by table, to a set of files for long-term, offline storage. Archive files can be restored to the same database instance if required. Archiving is typically an IT administrator's responsibility. The IBM Workplace for Business Controls and Reporting administrator will coordinate with IT to arrange for archiving to take place.

### 3.6.1 Versioning

The versioning task is scheduled from the Scheduling portlet. It can run periodically according to the fiscal year settings, or you can manually run the process as needed.

After running the versioning task successfully, a new snapshot of the whole system at this point in time is created in the database.

Each individual end user can switch to different versions of the data set from a drop-down list on the navigation portlets. The names of the versions represent

the time period covered, for example, Version: 03/31/05 - 06/30/05. The default version presented to end users is always the *current* version.

## What happens during versioning

When the versioning task runs it copies data from the current version's record tables to the corresponding history tables. For example, records in the OrgUnit table are copied to the OrgUnit\_History table.

Next, a number of tables are emptied in the current version after the copying completes. Notably, the tables that store records related to testing and control evaluations are:

- ▶ Control Evaluations
- ▶ Control Observations
- ▶ Samples
- ▶ Sample Remediations

In addition, the Certification table and the Audit Trail table are cleared.

After the versioning task is finished, what is now the previous version will contain an entire snapshot of the data, including attachments, evaluations, observations, test results, certifications, and the audit trail of changes made during that time period. What is now the current version will still have all the financial data, organizational data, and documentation, but all evaluations, observations, certifications, and audit trail data will have been cleared so that testing and evaluation for the new financial period can commence.

**Note:** In releases prior to IBM Workplace for Business Controls and Reporting V2.5.1, even if a next date was set for a control to be evaluated in the next financial period or beyond, this date will be blank in the new current version. In the IBM Workplace for Business Controls and Reporting V2.5.1 release, when a version is created, the IBM Workplace for Business Controls and Reporting administrator will be able to control whether:

- ▶ Evaluation data is kept in the current release.
- ▶ Only the next control evaluation date is kept in the current release.

See the global settings in “Additional global settings in IBM Workplace for Business Controls and Reporting V2.5.1” on page 145.



## Access control and previous versions

In general, the same access rights apply to the versioned data as assigned. However, the following rules apply:

- ▶ Access control lists (ACLs) cannot be edited. The owner or delegate of a business object cannot change the ownership or delegated ownership in the versioned data.
- ▶ Edits to documentation data is determined by the global settings for the Documentation Complete and Process Documentation Complete settings. If Documentation Complete is enforced, no edits are allowed on the documentation data for a process that has Documentation Complete. This is identical to edit access in the current version's documentation data.
- ▶ Creating new objects is not allowed in versioned data. However, evaluations and observations can still be done. New samples and remediations and attachments can still be created for test procedures.

**Important:** When versioned data is being accessed the *current* ACL applies. ACL tables are *not* versioned. The implications are best illustrated with an example. If Jim Doe owns the EMEA business unit but is relocated to become the executive for the Asia Pacific Business unit, we would change his ownership in the current version. Jim would no longer be able to see and access the EMEA unit, but would now have access to the Asia Pacific unit. When Jim now selects a previous version of the data, we want him to be able to look at historic data for the Asia Pacific unit, but no longer be able to see the EMEA unit. Applying current ACLs to versioned data implements this key functionality.

## Defining the financial year for automated versioning

Versions can either be created on a schedule and run automatically, or be initiated at any moment manually by the Workplace for Business Controls and Reporting administrator.

In order to run the versioning task in an automated fashion, the fiscal year start and end dates need to be defined. Perform the following steps (see Figure 3-36 on page 180):

1. Navigate to **WBCR Administration** → **Company Settings** → **Fiscal Year**.
2. Click **Edit** to enter or modify the current reporting year.
3. For each quarter, enter (or select from the date selector) an end date and a close date. Quarter end date is used to determine the automated versioning schedule. The versioning task will run one day after the end date. The quarter close date is informative only.
4. Click **OK** to save the fiscal year settings or **Cancel** to return.

Figure 3-36 Defining the fiscal year

We discuss the scheduling of the versioning task in 3.7.1, “Scheduling versioning” on page 183.

## 3.6.2 Archiving

Archiving works on versioned data and takes a snapshot of the data model, including all business objects, attachments, users, labels, access control, and audit trails. All data, after it is archived, will be read-only: no edits, creates, deletes can be made.

The archive utility is a *command line* utility, exporting data table by table to a set of files and is typically done by an IT administrator. For detailed instructions about how to configure archiving and how to run the archive utility, refer to the IBM Workplace for Business Controls and Reporting Information Center.

The Archive utility provides the following functions:

1. Archives data from the IBM Workplace for Business Controls and Reporting database to files:
  - a. When the Archive script is launched, the IT administrator can select to archive the Active (current) version or History version.
  - b. If History is selected, the next prompt shows the eligible versions. The administrator can select one or more History versions to be archived.
2. Deletes archived data from the IBM Workplace for Business Controls and Reporting active database.

If History versions are being archived, the IT administrator can select to have this data removed from the IBM Workplace for Business Controls and Reporting active database after archiving.

**Note:** The current version can be archived but cannot be removed from the IBM Workplace for Business Controls and Reporting active database.

3. Restores data from files to the Workplace for Business Controls and Reporting active database:
  - Versions can only be restored to the active Workplace for Business Controls and Reporting database.
  - If versions need to be restored to a different IBM Workplace for Business Controls and Reporting system, first make a backup of the active system and then restore the original database to the new IBM Workplace for Business Controls and Reporting instance before restoring versions using the archive utility.

**Note:** Users should not be accessing the active Workplace for Business Controls and Reporting database when versions are being archived to avoid possible conflicts.

## 3.7 Scheduler

The IBM Workplace for Business Controls and Reporting Scheduler, or *Async Manager*, leverages the WebSphere Application Server Scheduler Programming Model Extension (PEM), which enables a timer service with high performance, high availability, persistence, and transactional scheduling.

The Scheduler component in the IBM Workplace for Business Controls and Reporting administration interface is used to:

- ▶ Schedule and monitor versioning
- ▶ Track progress and status of catalog reimports
- ▶ Track progress and status of removing catalogs
- ▶ Schedule and monitor mail notifications

**Note:** With the separation of the WebSphere Portal administration functions and IBM Workplace for Business Controls and Reporting administration functions in IBM Workplace for Business Controls and Reporting V2.5.1, the Scheduler will no longer be available to the Workplace for Business Controls and Reporting administrator and will only be accessible with WebSphere Portal administrator rights.

Refresh

To schedule or modify an event, click on the event. To manage a scheduled event, use the action buttons.

Event	Status	Frequency	Next Run	Last Run	Messages	Progress	Task Log	Actions
Version Data	✓	One time	2/5/05 2:04 PM	Task success				
	⌚	Quarterly	7/1/05 12:00 AM					
Import Data	✓	One time	5/5/05 1:58 PM	Reimport task is finished				
	✓	One time	5/18/05 3:53 PM	Import task is finished				
Delete Import Data	✓	One time	5/5/05 2:05 PM	Delete task is finished				
Notifications	⌚	Daily	6/25/05 2:37 AM					

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Status icons: ⌚=Not scheduled   ⌚=Scheduled   ⌚=Running   ⬛=Canceled   ✓=Completed   🟡=Suspended   ⚠=Invalid

Action buttons: ⬛=Cancel   🗑=Delete   🟢=Resume   🟡=Suspend

Figure 3-37 IBM Workplace for Business Controls and Reporting Scheduler portlet

As shown in Figure 3-37, the Scheduler enables you to see the current status of the four tasks, the scheduled frequency, the next run date, last run date, task messages, the task log. The last column shows possible actions the administrator can take. Consider the following details:

- ▶ Running tasks can be suspended and later resumed.
- ▶ Only tasks that are not currently running can be cancelled. Scheduled tasks can be cancelled and, if required, deleted.
- ▶ Import Data and Delete Import Data refer to catalog imports (not a back-end data import that is run from the command line). These are always set to run one time and will be scheduled automatically to run as soon as possible when a catalog is imported by the Workplace for Business Controls and Reporting administrator, as described in “Importing the spreadsheet” on page 169.

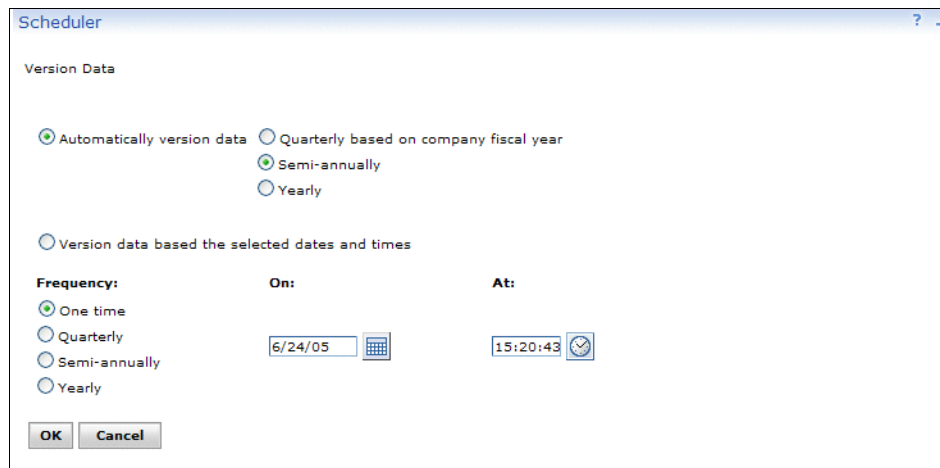
**Note:** In the current release, clicking the log icon will only provide the start date and time, the end date and time, and the task status for any given instance. Detailed log information is generally in the standard system logs (systemErr.log, systemOut.log, and wps\_yyyy.mm.dd.hh.ss.log).

### 3.7.1 Scheduling versioning

To schedule the versioning task, perform the following steps (see Figure 3-38):

1. Navigate to **WBCR Administration** → **Scheduler**.
2. Click the **Version Data** link.
3. Select **Automatically** to create versions based on the fiscal year settings, as defined in “Defining the financial year for automated versioning” on page 179. If **Automatically** is selected, define whether versioning should take place:
  - Quarterly
  - Semi-annually
  - Yearly
4. Select **Version data based the selected dates and times** to manually define a one time run for the versioning task:
  - Optionally pick a value for One time, Quarterly, Semi-annually, or Yearly as a reminder, or leave the default as **One time**.
  - Specify the specific date and time by entering or picking value from the calendar and time selector.
5. Click **OK** to save or **Cancel** to return to the IBM Workplace for Business Controls and Reporting Scheduler.

To schedule the versioning task to create a version semi-annually based on the fiscal year settings, your window should look like the sample shown in Figure 3-38.



The screenshot shows a window titled "Scheduler" with a "Version Data" section. It contains two main radio button options: "Automatically version data" (selected) and "Version data based the selected dates and times". Under "Automatically version data", there are three sub-radio buttons: "Quarterly based on company fiscal year", "Semi-annually" (selected), and "Yearly". Under "Version data based the selected dates and times", there is a "Frequency:" section with four radio buttons: "One time" (selected), "Quarterly", "Semi-annually", and "Yearly". To the right of the frequency section are two input fields: "On:" with a date input showing "6/24/05" and a calendar icon, and "At:" with a time input showing "15:20:43" and a clock icon. At the bottom left are "OK" and "Cancel" buttons.

Figure 3-38 Automated versioning Semi-annually

### 3.7.2 Scheduling mail notifications

Only the passive mail notification events (due and overdue control evaluations) are explicitly scheduled through the Scheduler portlet. All other enabled notification events are triggered directly when users make changes.

To schedule the time of day when the system will send due and overdue messages for control evaluations, perform the following steps:

1. Select the **Notifications** link from the Scheduler.
2. Specify a time of day by entering a value or picking it using the time selector. We recommend scheduling this task to run at off-peak hours or outside office hours, because a large number of e-mails can potentially be sent.
3. Click **OK** to save or **Cancel** to return to the IBM Workplace for Business Controls and Reporting Scheduler.

With the settings defined as shown in Figure 3-39, the due and overdue notifications will be collected and sent each day at 02:15 a.m.

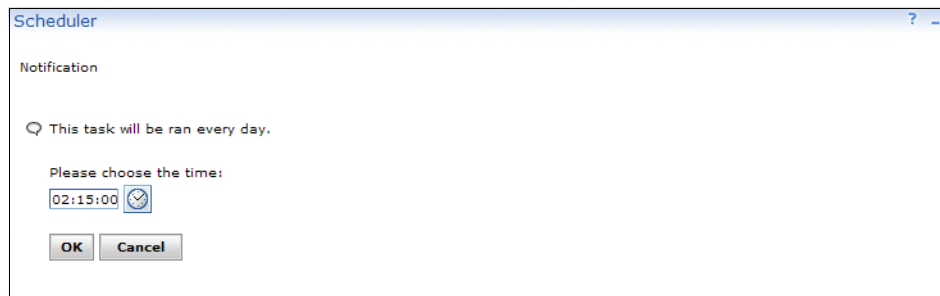


Figure 3-39 Scheduling due and overdue notifications to be sent at 02:15 a.m.



## Implementation overview and deployment considerations

This chapter is intended as a high-level overview of basic architecture and deployment considerations for IBM Workplace for Business Controls and Reporting. This is *not* intended to be a detailed deployment, configuration, or installation guide.

In this chapter, we introduce:

- ▶ Application components overview
- ▶ Architecture examples
- ▶ IT administrator skills
- ▶ Hosting option overview

## 4.1 Application components overview

IBM Workplace for Business Controls and Reporting is a browser-based application built on open standards such as J2EE and Web services that leverage IBM market-leading middleware to provide a framework to deliver the IBM Workplace for Business Controls and Reporting product functionality.

When you purchase IBM Workplace for Business Controls and Reporting, limited licenses for all the IBM underlying technology is included for use in relation to IBM Workplace for Business Controls and Reporting. Crystal Reports is shipped in the box with five complementary licenses. See your local IBM Sales representative for additional licensing needs.

### Software components

In this section, we review at a high level each of the software components used with IBM Workplace for Business Controls and Reporting and explain how they are used. At the time this Redpaper was written, IBM Workplace for Business Controls and Reporting was shipping and available on two operating platforms:

- ▶ Microsoft Windows®
- ▶ IBM AIX® 5L™

For detailed system requirements or current platform support, refer to the IBM Workplace for Business Controls and Reporting Information Center:

<http://www.lotus.com/ldd/notesua.nsf/ddaf2e7f76d2c6bf8525674b00508d2b/36b4962e1d7518fe85256ff1006dbac9>

### Database

The underlying IBM DB2 database is where all the IBM Workplace for Business Controls and Reporting application data and WebSphere Portal data are stored. The current version ships with DB2 Universal Database™ (UDB) Enterprise Server Edition.

When looking at the infrastructure for the application, you need to decide where you want to store and manage attachments with IBM Workplace for Business Controls and Reporting. You can either store attachments on a file system, or within DB2 Content Manager.

A few questions to ask to help determine which one to use are:

- ▶ Are you planning on providing a highly available system through clustering?
- ▶ Do you plan on having a large volume of sizable attachments within the application?



- ▶ Does your organization have a DB2 Content Manager deployment that you want to leverage for this installation?

If you answer yes to any of these questions, you will want to implement DB2 Content Manager as the back-end repository for the application and attachments. DB2 Content Manager provides the high-end features needed to support those types of functions and is configured during the installation of IBM Workplace for Business Controls and Reporting.

### ***LDAP***

For user authentication in IBM Workplace for Business Controls and Reporting, you have two options. The application can leverage an existing LDAP directory that your company has implemented and is using for other applications, or IBM Tivoli® Directory Server ships in the box if you want to manage users and access from the application.

The following LDAP directories are supported:

- ▶ IBM Lotus Domino Server
- ▶ IBM Tivoli Directory Server
- ▶ Microsoft Active Directory
- ▶ Sun™ Java™ System Directory Server (formerly Sun ONE™ Directory Server)
- ▶ Novell eDirectory

A few considerations:

- ▶ You or someone in your organization will need to make several additions to the directory, so ensure that you have appropriate access to the LDAP server.
- ▶ Because many companies secure their LDAP directory behind firewalls, ensure that you can reach the LDAP server from the new servers that you are installing.

### ***WebSphere Portal***

IBM Workplace for Business Controls and Reporting is installed and run on IBM WebSphere Portal server. WebSphere Portal is the application that is used for the user interface, look and feel, security and access control, and application integration capabilities.

WebSphere Portal is an enterprise application that runs on the IBM standards-based J2EE application server, IBM WebSphere Application Server. WebSphere Portal is installed with everything that it needs to run, including WebSphere Application Server and IBM HTTP Server.

A few considerations:

- ▶ After WebSphere Portal is installed and running, you need to configure it to work with both DB2 and LDAP.
- ▶ If you are planning to use an external HTTP server (for example, outside of the firewall), delay this step until after IBM Workplace for Business Controls and Reporting is installed.

### **Reports**

At the time this Redpaper was written, IBM Workplace for Business Controls and Reporting ships with five licenses of Crystal Enterprise. If you decide to implement Crystal as your reporting engine, this component is used to run the Executive View, any of the out-of-box standard reports, and any custom reports you might add to the system.

A few considerations:

- ▶ Crystal will need to be configured to work with the DB2 application. This consists of creating a database and an ODBC connection to that database.
- ▶ Crystal needs an HTTP server to communicate with the users' browsers. For this, install IBM HTTP Server. The Information Center outlines specific version and fix packs.
- ▶ After Crystal is installed, you need to upload the standard IBM Workplace for Business Controls and Reporting reports to the server. In addition, any time you create a custom report, you need to upload them to the Crystal server so that they are available. See Appendix B, "Adding custom reports" on page 201.

## **4.2 Architecture examples**

This section illustrates a few examples of configuration options for IBM Workplace for Business Controls and Reporting. We recommend discussing and planning an architecture with an experienced deployment specialist to determine how to handle your unique requirements.

### **4.2.1 IBM test environment**

Figure 4-1 on page 189 illustrates an example of a four server installation used in an IBM development test environment.

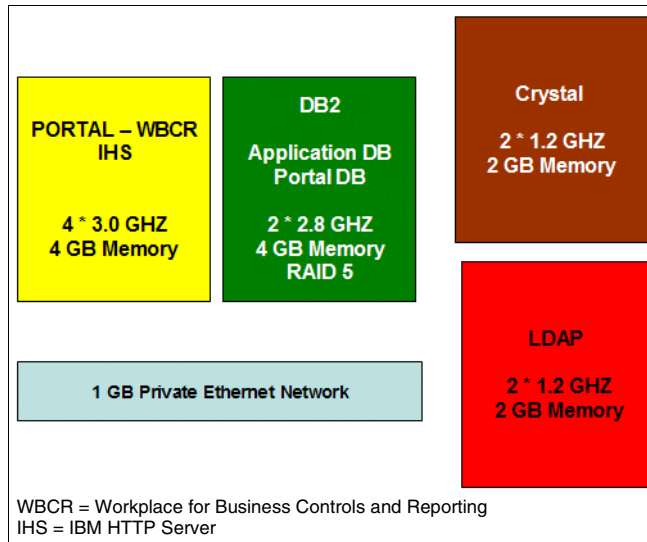


Figure 4-1 Development test environment

In the deployment test environment shown in Figure 4-1:

- ▶ **Server 1: WebSphere Portal, Workplace for Business Controls and Reporting, IBM HTTP Server**  
This server contains the required HTTP server and the WebSphere Portal server with IBM Workplace for Business Controls and Reporting installed on top of it.
- ▶ **Server 2: DB2**  
The DB2 server has its own dedicated server for tuning and performance reasons. It contains both application and WebSphere Portal data.
- ▶ **Server 3: Crystal**  
The third server in this configuration is dedicated to the reports server. It is possible to consolidate this server with another. We recommend working with IBM Services to determine the best combination.
- ▶ **Server 4: LDAP**  
Finally, a separate LDAP server can provide user credentials to allow for authentication into the WebSphere Portal and ultimately the IBM Workplace for Business Controls and Reporting application. Many companies choose to leverage an existing LDAP directory.

This entire environment is located on a private network without any firewalls and provides a simple configuration in which to manage connections.

## 4.2.2 Accessing a large-scale deployment from the Internet

The implementation example that follows in Figure 4-2 is of a large installation at a company that allows their users to access the IBM Workplace for Business Controls and Reporting system through the Internet.

All the servers on the left side of this diagram are inside the corporate firewall. You will also notice that each of the components have been broken out onto individual servers; this was done for the scalability of the application.

Because this is a large installation with high-volume usage, notice that DB2 Content Manager was installed to manage and store the attachments for the application.

The HTTP server is in the DMZ so that it can receive and route the requests from the Internet to the IBM Workplace for Business Controls and Reporting/WebSphere Portal server behind the firewall.

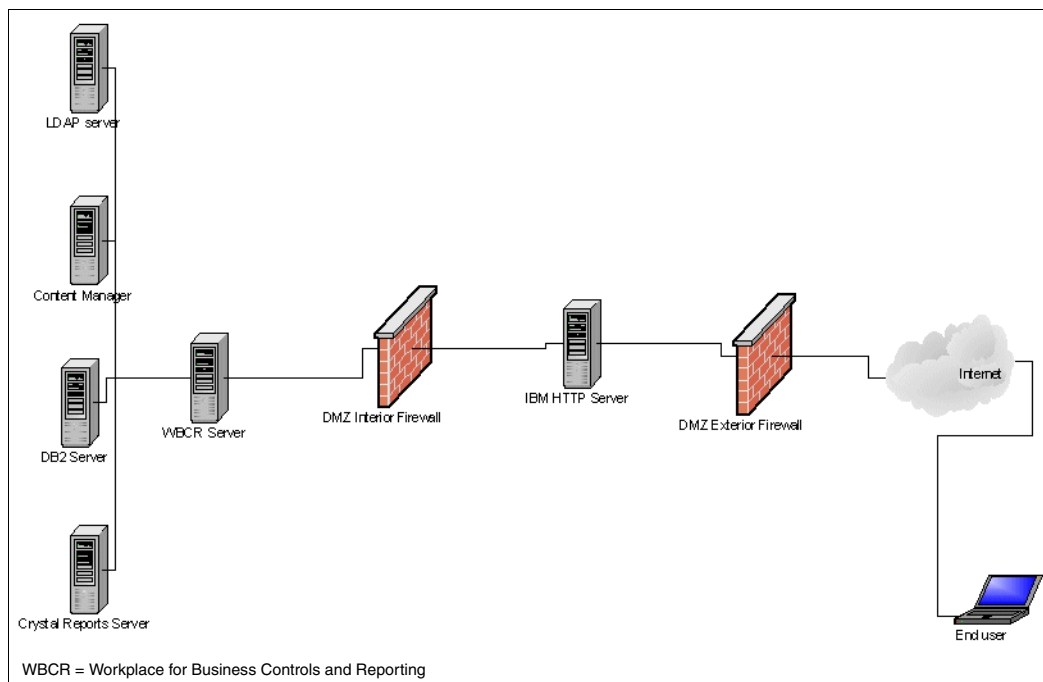


Figure 4-2 Accessing IBM Workplace for Business Controls and Reporting from the Internet

### 4.2.3 Small configuration example

In Figure 4-3, you will notice that several components have been combined. This sample architecture was built at a small company that has a small set of users. However, based on the need for high availability requirements, they implemented DB2 Content Manager for this scenario.

You will also notice that this company did not have an existing corporate LDAP directory to leverage, so they installed a contained LDAP server for this installation and combined this component with the Crystal Enterprise Server component on one box.

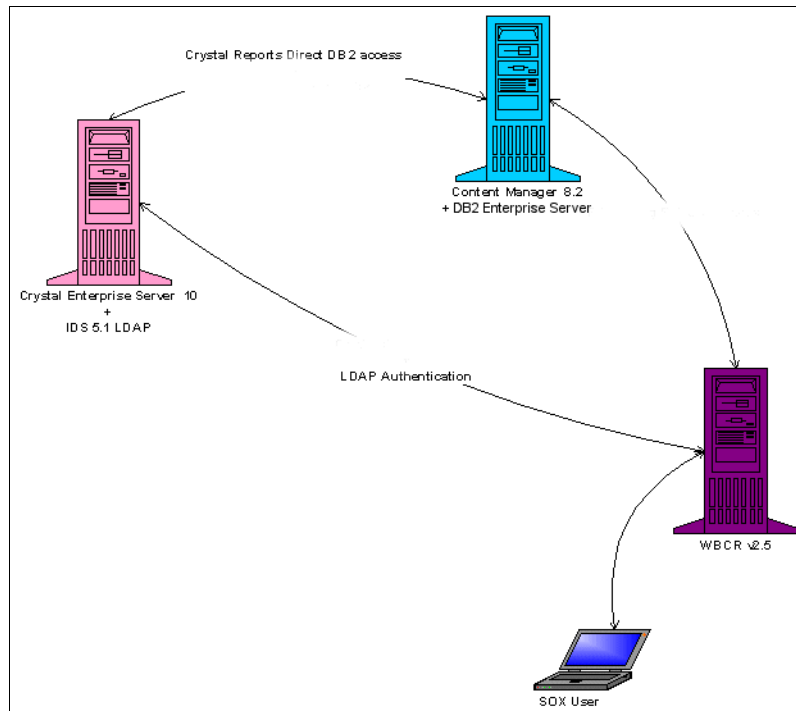


Figure 4-3 Small configuration example

## 4.3 Expertise and skills required

This section is intended for organizations that are not using hosting and plan to provide their own IT infrastructure to support IBM Workplace for Business Controls and Reporting.

There are two options you have for securing IBM Workplace for Business Controls and Reporting for your company. You can either install the application in-house, or IBM provides a hosted offering of IBM Workplace for Business Controls and Reporting if you do not want to maintain the infrastructure for the application. In this section, we list the administration skills required to run the application, provide an overview of the hosted solution, and provide references for education options.

The following general prerequisites apply to administrators who will be in charge of the on-going deployment, configuration, and maintenance of the Workplace for Business Controls and Reporting components in an IT infrastructure. Preferred administrator job skills include:

- ▶ IBM WebSphere Portal administration skills
- ▶ Relational database administration skills, preferably DB2
- ▶ IBM DB2 Content Manager administration skills (if implemented)
- ▶ General knowledge of the IBM Lotus, WebSphere, and DB2 technologies
- ▶ Skills in the operating systems being used (Microsoft Windows 2000 Server, AIX 5L, and so on)
- ▶ LDAP concepts
- ▶ Java skills

### 4.3.1 Hosting

IBM offers a hosted solution for IBM Workplace for Business Controls and Reporting. By choosing this option, you forgo the need to set up hardware and complete the installation and configuration of the system. A customer system can be up and running in 4 hours to 2 days, ready for you or IBM to load your organization structure and documentation into the application. Within 5 to 10 days, you should be ready for production level use.

For more information, contract your local IBM Sales Representative.

### 4.3.2 Classroom courses for system administrators

The following classes are available for system administrators:

- ▶ IBM WebSphere Application Server V5.1 Administration, SW246, 4 days  
<http://education.lotus.com/rw/lewwschd.nsf/5816175A047CE7BA852565C2005B6933/8D023B6AA4B0449C85256EBD0072D64B?OpenDocument>

- ▶ IBM WebSphere Portal 5.0 Administration, SW532, 3 days  
<http://education.lotus.com/rw/lewwschd.nsf/5816175A047CE7BA852565C2005B6933/6025055FF0A57F3985256E590057273E?OpenDocument>
- ▶ DB2 Universal Database Administration Workshop for Windows, CF231, 3 days  
[http://www-304.ibm.com/jct03001c/services/learning/ites.wss/us/en?pageType=course\\_description&courseCode=CF231](http://www-304.ibm.com/jct03001c/services/learning/ites.wss/us/en?pageType=course_description&courseCode=CF231)
- ▶ IBM DB2 Content Manager V8 Implementation and Administration, IM401, 4 days  
[http://www-304.ibm.com/jct03001c/services/learning/ites.wss/us/en?pageType=course\\_description&courseCode=IM401](http://www-304.ibm.com/jct03001c/services/learning/ites.wss/us/en?pageType=course_description&courseCode=IM401)
- ▶ Crystal Reports Design and Administration  
<http://www.businessobjects.com/services/training/default.asp>

### 4.3.3 Related Redbooks

Refer to the following IBM Redbooks for more information:

- ▶ *WebSphere Product Family Overview and Architecture*, SG24-6963  
<http://www.redbooks.ibm.com/abstracts/sg246963.html>
- ▶ *WebSphere Portal V5.0 Production Deployment and Operations Guide*, SG24-6391  
<http://www.redbooks.ibm.com/abstracts/sg246391.html>
- ▶ *IBM WebSphere Application Server V5.1 System Management and Configuration, WebSphere Handbook Series*, SG24-6195  
<http://www.redbooks.ibm.com/abstracts/sg246195.html>
- ▶ *IBM WebSphere Portal for Multiplatforms V5 Handbook*, SG24-6098  
<http://www.redbooks.ibm.com/abstracts/sg246098.html>
- ▶ *WebSphere Portal Server and DB2 Information Integrator: A Synergistic Solution*, SG24-6433  
<http://www.redbooks.ibm.com/abstracts/sg246433.html>
- ▶ *DB2 UDB V8 and WebSphere V5 Performance Tuning and Operations Guide*, SG24-7068  
<http://www.redbooks.ibm.com/abstracts/sg247068.html>
- ▶ *Content Manager Implementation and Migration Cookbook*, SG24-7051  
<http://www.redbooks.ibm.com/abstracts/sg247051.html>

- ▶ *Performance Tuning for Content Manager*, SG24-6949  
<http://www.redbooks.ibm.com/abstracts/sg246949.html>
- ▶ *Content Manager Backup/Recovery and High Availability: Strategies, Options, and Procedures*, SG24-7063  
<http://www.redbooks.ibm.com/abstracts/sg247063.html>





# **IBM Workplace for Business Controls and Reporting V2.5.1 Federal template**

This appendix describes how IBM Workplace for Business Controls and Reporting V2.5.1 provides specific support for federal agencies using a Federal template that applies label changes to support Government Accountability Office (GAO) standards, allows federal financial statements to be defined, and supports generating Statements of Assurance.

## Background

*Circular NO. A-123 Revised* issued by the Office of Management and Budget (OBM) provides guidance to federal managers on improving the accountability and effectiveness of federal programs and operations by establishing, assessing, correcting, and reporting on internal control. The revised circular provides updated internal control standards and new specific requirements for conducting management's assessment of the effectiveness of internal control over financial reporting. The revision to the circular will become effective in fiscal year 2006 and agencies are urged to take steps toward compliance in fiscal year 2005.

Specifically, agencies and individual federal managers must take systematic and proactive measures to:

- ▶ Develop and implement appropriate, cost-effective internal control for results-oriented management.
- ▶ Assess the adequacy of the internal control in federal programs and operations.
- ▶ Separately assess and document internal control over financial reporting.
- ▶ Identify needed improvements.
- ▶ Take corresponding corrective action.
- ▶ Report annually on internal control through management assurance statements.

## How IBM Workplace for Business Controls and Reporting 2.5.1 addresses specific federal requirements

IBM Workplace for Business Controls and Reporting gives organizations an excellent framework for documenting and assessing internal control over operations and financial reporting. IBM Workplace for Business Controls and Reporting V2.5.1 provides a Federal template that implements some of the specific federal requirements and provides out-of-the-box support for *Revision to Circular A-123*.

### Template provides GAO terminology

The IBM Workplace for Business Controls and Reporting Federal template applies the General Accountability Office (GAO) terminology, specifically where the standard template references the COSO framework and components, the Federal template references this as GAO Control Standards throughout the application.

The standard deficiency impact ratings have been changed to more closely reflect the federal terminology:

- ▶ Non-Conformance
- ▶ Control Deficiency
- ▶ Reportable Condition
- ▶ Material Weakness

## **Template supports federal financial statements**

Standard IBM Workplace for Business Controls and Reporting enables you to create three consolidated financial statements (income statement, balance sheet, and disclosures) and establish linkage between significant line items and subprocesses.

The IBM Workplace for Business Controls and Reporting Federal template supports up to 10 financial statements, among which are the six basic statements as outlined in *OMB Bulletin 01-09*:

- ▶ Balance Sheet
- ▶ Statement of Change to Net Cost
- ▶ Statement of Changes in Net Position

Additional columns are available to accommodate the two components that affect net position: Cumulative Results of Operation and Unexpended Appropriations. See the sample in Figure A-1 on page 198.

- ▶ Statement of Budgetary Resources

Additional columns are available to accommodate the two components that affect budgetary resources: Budgetary and Non-budgetary Credit Program Financing Accounts.

- ▶ Statement of Financing
- ▶ Statement of Custodial Activity

Department/Agency/Reporting Entity				
CONSOLIDATED STATEMENT OF CHANGES IN NET POSITION				
For the years ended September 30, 20x2 and 20x1				
(in dollars/thousands/millions)				
	20x2	20x2	20x1	20x1
	Cumulative	Unexpended	Cumulative	Unexpended
	Results	Appropriations	Results	Appropriations
	of Operations		of Operations	
1. Beginning Balances	\$ xxx	\$ xxx	\$ xxx	\$ xxx
2. Prior period adjustments (+/-)	<u>xxx</u>	<u>xxx</u>	<u>xxx</u>	<u>xxx</u>
3. Beginning balances, as adjusted	xxx	xxx	xxx	xxx
Budgetary Financing Sources:				
4. Appropriations received		xxx		xxx
5. Appropriations transferred-in/out (+/-)		xxx		xxx
6. Other adjustments (rescissions, etc) (+/-)	xxx	xxx	xxx	xxx
7. Appropriations used	xxx	-xxx	xxx	-xxx
8. Nonexchange revenue	xxx		xxx	
9. Donations and forfeitures of cash and cash equivalents	xxx		xxx	
10. Transfers-in/out without reimbursement (+/-)	xxx		xxx	
11. Other budgetary financing sources (+/-)	xxx		xxx	
Other Financing Sources:				
12. Donations and forfeitures of property	xxx		xxx	
13. Transfers-in/out without reimbursement (+/-)	xxx		xxx	
14. Imputed financing from costs absorbed by others	xxx		xxx	
15. Other (+/-)	<u>xxx</u>		<u>xxx</u>	
16. Total Financing Sources	xxx	<u>xxx</u>	xxx	<u>xxx</u>

Figure A-1 Sample statement of Net Position with additional columns

## Support for Statement of Assurance

According to *Revised Circular NO. A-123*, management is required in its assurance statement on the internal controls over financial reporting to state a direct conclusion about whether the agency's internal controls over financial reporting are effective.

The IBM Workplace for Business Controls and Reporting Version 2.5.1 Federal template includes additional reporting capabilities to generate the following three Statement of Assurance (SoA) reports:

- Unqualified Statement of Assurance (no material weaknesses reported).  
Figure A-2 on page 199 shows a sample unqualified statement of assurance.

<b>Fiscal Year 2xxx Annual Assurance Statement on Internal Control over Financial Reporting</b> The [Agency's] management is responsible for establishing and maintaining effective internal control over financial reporting, which includes safeguarding of assets and compliance with applicable laws and regulations. The [Agency] conducted its assessment of the effectiveness of the [Agency's] internal control over financial reporting in accordance with OMB Circular A-123, Management's Responsibility for Internal Control. Based on the results of this evaluation, the [Agency] can provide reasonable assurance that internal control over financial reporting as of June 30, 2xxx was operating effectively and no material weaknesses were found in the design or operation of the internal controls over financial reporting.	
<div style="text-align: right;">Executive Name and Title</div>	
<div style="text-align: right;">- Agency Name</div>	

Figure A-2 Sample of Unqualified Statement of Assurance

- ▶ Qualified Statement of Assurance (one or more material weaknesses reported). This report includes a list of material weaknesses and non-conformances observed alongside a summary of corrective action.
- ▶ Statement of no assurance (no processes in place or pervasive material weaknesses).





# B

## Adding custom reports

In IBM Workplace for Business Controls and Reporting V2.5.01 and later, you can add new custom reports to the list of standard reports that come with the product. Writing custom reports requires in-depth knowledge of the IBM Workplace for Business Controls and Reporting data model, skills to write SQL statements, and general report designer skills using the reporting engine your organization deploys with IBM Workplace for Business Controls and Reporting. For more information about the IBM Workplace for Business Controls and Reporting data model, see the IBM Workplace for Business Controls and Reporting Information Center. The creation of new reports is beyond the scope of this paper. We do, however, create a new report based on an existing report and discuss the general concepts involved in creating custom reports. This appendix also provides the IBM Workplace for Business Controls and Reporting administrator with instructions about how a new report can be added to the IBM Workplace for Business Controls and Reporting user interface. Finally, we provide an additional sample report for certification status.

# Auditor Observations sample

Workplace for Business Controls and Reporting comes with a standard report, Observations and Recommendations, that lists all the controls for a business unit (and its dependent units) selected by the user. The report never shows controls to which the user has no access. The standard report, however, only contains control owner observations and recommendations, not the observations created by (external) auditors through the Auditor Observation functionality. In fact, there is no current report that lists these observations, and users could only see these by navigating the tree and checking whether individual controls have auditor observations.

As an example, we adapt a copy of the existing report and add it to the Workplace for Business Controls and Reporting user interface as a new custom report called Auditor Observations.

## Four different report versions

For every report you want to make available, you will, in general, create four different versions. For performance reasons, two of these versions circumvent the Workplace for Business Controls and Reporting ACL tables if the user has owner access at the selected business unit level or above that level. Also, a user might want to generate reports for previous versions of the data set. If a user first selected a previous version and subsequently runs a report, different tables (the History tables) will have to be accessed in the back-end database. This results in four different versions of a report. Which one is going to be generated will be completely transparent to end users. Following the Workplace for Business Controls and Reporting naming convention, which allows the system to identify the correct report version, we create the versions shown in Table B-1 to implement the custom report for Auditor Observations.

Table B-1 Four report versions

Report template name	When used
AuditorObservations	Used with current version when ACL needs to be observed.
NoAclAuditorObservations	Used with current version when user owns selected business unit or business unit above.
HistAuditorObservations	Used with previous version when ACL needs to be observed.
NoAclHistAuditorObservations	Used with previous version when user owns selected business unit or business unit above.



In the following section, we outline the steps to create the NoAcIAuditorObservations version, which is the easiest to customize. Creating the additional three reports is very similar. All four finished reports will be available as additional material with this Redpaper. If you do not want to re-create the reports yourself, you can copy the reports to the Workplace for Business Controls and Reporting template directory on the Crystal 10 server (for example, c:\Report Templates) and skip to “Publishing the new report to Crystal Enterprise 10” on page 208 to just publish the finished reports.

**Note:** We use Business Objects Crystal Reports 10. Instructions for using alternative report designer tools and reporting engine will be different.

## Steps to customize a report based on an existing report

To customize a report based on an existing report, perform the following steps:

1. Launch Crystal Reports 10. On the Welcome window, click **More Files**, as shown in Figure B-1.

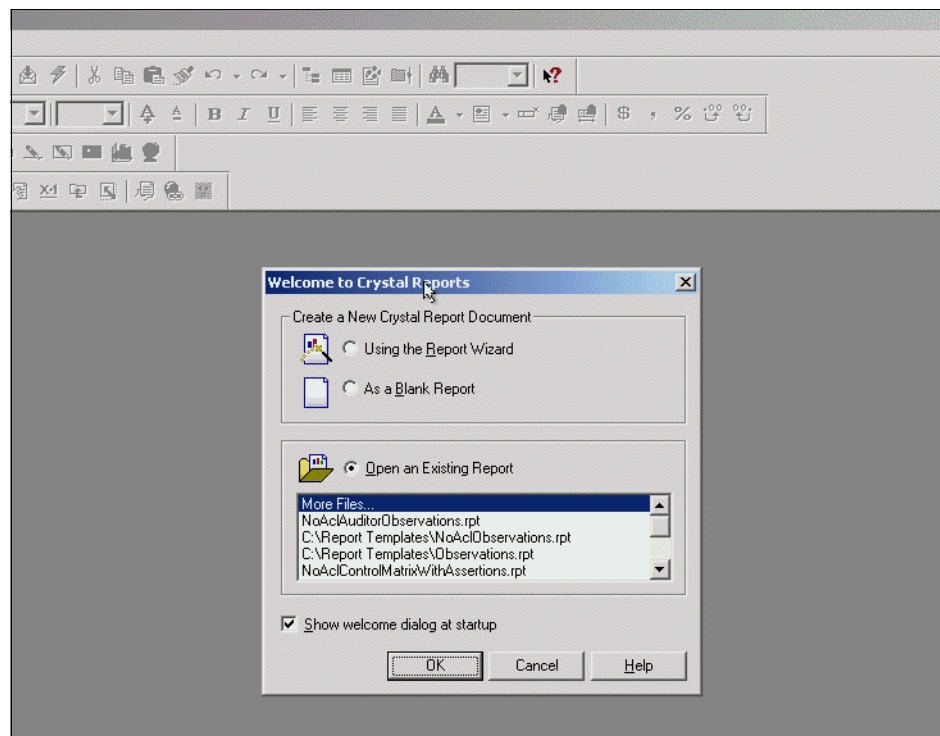


Figure B-1 Crystal Reports 10 Welcome window

2. Browse to the directory where the Workplace for Business Controls and Reporting standard report templates are installed, for example, c:\Report Templates.
3. Open the existing report template **NoAclObservations.rpt**, as shown in Figure B-2.

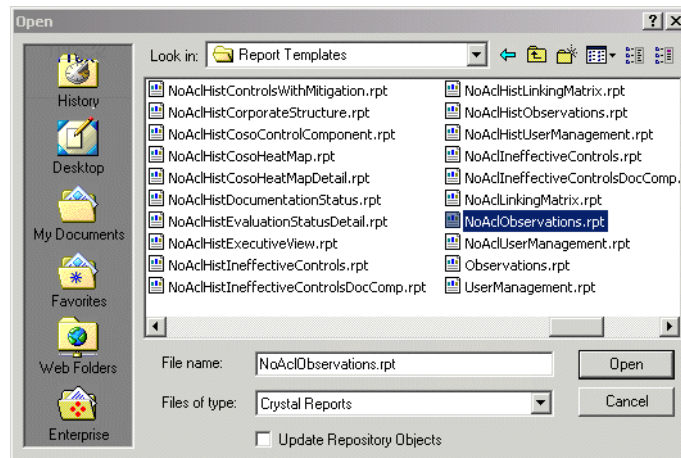


Figure B-2 Opening the standard report for Control Observations

4. We first make changes to the SQL command. To edit the SQL command, select **Database** → **Database Expert**.
5. On the next window, right-click the command and select **Edit**. You will now see the SQL on the left side of the window, as shown in Figure B-3.

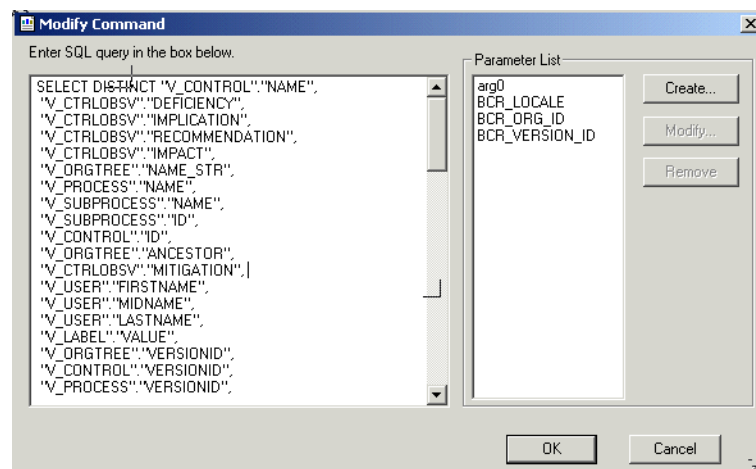


Figure B-3 SQL command and parameters in edit mode

Notice the parameters on the right side. These are the values passed on to Crystal Reports by Workplace for Business Controls and Reporting, and in general, will include the selected business unit ID, the version ID (-1 for the current version), and the user's locale (en\_US for English). In a report version that needs to observe the ACL, you will also see a parameter for the current user ID. The report we are currently modifying is the only standard report that uses the arg0 parameter. It is used to pass a user-selected value to show All Controls, only Controls with Deficiency, Significant Deficiency, or Material Deficiency. The default is to show All Controls; even those for which no observations were made.

The mechanism to make custom reports available to the Workplace for Business Controls and Reporting end users does not currently support the use of this additional parameter arg0, so in our custom report for Auditor Observations, we always show only those controls for which auditor observations were made, regardless of the impact rating.

6. Select **arg0** in the parameter list and click **Remove**.
7. In the SELECT statement, add the following value to extract the auditor's name who made the observation so that we can include that in the report:  
`"V_CTRLBSV"."OBSERVEDBY"`
8. In the FROM statement, locate the following part:  
`"V_LABEL" ON "V_CTRLBSV"."IMPACT"="V_LABEL"."KEY")`  

**RIGHT OUTER JOIN**

`"WBCR"."V_CONTROL" "V_CONTROL"`
9. Change the previous statement from a **RIGHT OUTER JOIN** to an **INNER JOIN** to exclude all controls for which no observations were made:  
`"V_LABEL" ON "V_CTRLBSV"."IMPACT"="V_LABEL"."KEY")`  

**INNER JOIN**

`"WBCR"."V_CONTROL" "V_CONTROL"`
10. On the next line in the FROM statement, change "Type"=0 to "Type"=1 to select the auditor observations rather than the control owner observations:  
`ON ("V_CTRLBSV"."PARENTID"="V_CONTROL"."ID" AND "V_CTRLBSV"."TYPE"=1)`
11. In the WHERE statement, remove the entire line that refers to the arg0 parameter that was used for user-selected filtering:  
`AND ("V_CTRLBSV"."IMPACT"={?arg0} OR {?arg0}='wbcr.report.parameter.all')`  
 Your modified SQL will now look like the SQL shown in Example B-1 on page 206.

```
SELECT DISTINCT "V_CONTROL"."NAME",
               "V_CTRLBSV"."DEFICIENCY",
               "V_CTRLBSV"."IMPLICATION",
               "V_CTRLBSV"."RECOMMENDATION",
               "V_CTRLBSV"."IMPACT",
               "V_CTRLBSV"."OBSERVEDBY",
               "V_ORGTREE"."NAME_STR",
               "V_PROCESS"."NAME",
               "V_SUBPROCESS"."NAME",
               "V_SUBPROCESS"."ID",
               "V_CONTROL"."ID",
               "V_ORGTREE"."ANCESTOR",
               "V_CTRLBSV"."MITIGATION",
               "V_USER"."FIRSTNAME",
               "V_USER"."MIDNAME",
               "V_USER"."LASTNAME",
               "V_LABEL"."VALUE",
               "V_ORGTREE"."VERSIONID",
               "V_CONTROL"."VERSIONID",
               "V_PROCESS"."VERSIONID",
               "V_SUBPROCESS"."VERSIONID",
               "V_USER"."VERSIONID",
               "V_LABEL"."LOCALE",
               "V_CTRLVAL"."EFFECTIVE"
FROM   (((("WBCR"."V_ACL" "V_ACL"
          INNER JOIN ("WBCR"."V_CTRLVAL" "V_CTRLVAL"
                    RIGHT OUTER JOIN (("WBCR"."V_CTRLBSV" "V_CTRLBSV"
                                        FULL OUTER JOIN "WBCR"."V_LABEL"
                                        "V_LABEL" ON "V_CTRLBSV"."IMPACT"="V_LABEL"."KEY")
                                        INNER JOIN
                                        "WBCR"."V_CONTROL" "V_CONTROL"
                                        ON ("V_CTRLBSV"."PARENTID"="V_CONTROL"."ID" AND "V_CTRLBSV"."TYPE"<>0)
                                        AND
                                        ("V_CTRLBSV"."VERSIONID"="V_CONTROL"."VERSIONID"))
                                        ON ("V_CTRLVAL"."VERSIONID"="V_CONTROL"."VERSIONID")
                                        AND ("V_CTRLVAL"."PARENTID"="V_CONTROL"."ID"))
                                        ON "V_ACL"."RESID"="V_CONTROL"."ID") INNER JOIN "WBCR"."V_USER"
                                        "V_USER" ON "V_ACL"."USERID"="V_USER"."ID")
          INNER JOIN "WBCR"."V_RISK" "V_RISK" ON
          "V_CONTROL"."PARENTID"="V_RISK"."ID")
          INNER JOIN "WBCR"."V_SUBPROCESS" "V_SUBPROCESS" ON
          "V_RISK"."PARENTID"="V_SUBPROCESS"."ID")
          INNER JOIN "WBCR"."V_PROCESS" "V_PROCESS" ON
          "V_SUBPROCESS"."PARENTID"="V_PROCESS"."ID")
          INNER JOIN "WBCR"."V_ORGTREE" "V_ORGTREE" ON
          "V_PROCESS"."PARENTID"="V_ORGTREE"."ID"
WHERE
```

```

"V_ORGTREE"."ANCESTOR"={?BCR_ORG_ID}
AND "V_ORGTREE"."VERSIONID"={?BCR_VERSION_ID}
AND "V_SUBPROCESS"."VERSIONID"={?BCR_VERSION_ID}
AND "V_CONTROL"."VERSIONID"={?BCR_VERSION_ID}
AND "V_PROCESS"."VERSIONID"={?BCR_VERSION_ID}
AND "V_USER"."VERSIONID"={?BCR_VERSION_ID}
AND "V_RISK"."VERSIONID"={?BCR_VERSION_ID}
AND "V_ACL"."VERSIONID"={?BCR_VERSION_ID}
AND ("V_LABEL"."LOCALE" IS NULL OR "V_LABEL"."LOCALE"='{?BCR_LOCALE}')
```

---

```

AND "V_CONTROL"."DELETED" = 0
AND "V_ACL"."OWNER" = 1
AND "V_ORGTREE"."SCOPE" <>
'wbcr.orgunit.label.scope.aggregated_not_important'
```

12. Click **OK** to save the modified SQL statement.
13. The SQL will need to be executed once now, so you will be asked to provide the Workplace for Business Controls and Reporting database administrator user name and password on the next window. Click **Finish** to go to the next window.
14. You now need to provide the following three parameter values:
  - BCR\_ORG\_ID = 16,000,000,000,001  
(the internal ID of your top business unit)
  - BCR\_VERSION\_ID = -1  
(the current version)
  - BCR\_LOCALE = en\_US
15. Click **OK**.
16. You are now back on the Database Expert window. Click **OK**.
17. On the Report Design window, change the Report Title to Auditor Observations and Recommendations by double-clicking in the original field and changing the text.
18. Change the Owner label in the Report heading to Observed By.
19. Select the field labeled **@ExtUserID-display** and click **Delete**.
20. In the Field Explorer on the far right side of the window, expand **Database Fields** → **Command**. Drag the field **OBSERVEDBY** onto the Report window and drop it in the spot where you removed the @ExtUserID-display field, as shown in Figure B-4 on page 208.
21. Remove the additional field header for OBSERVEDBY.

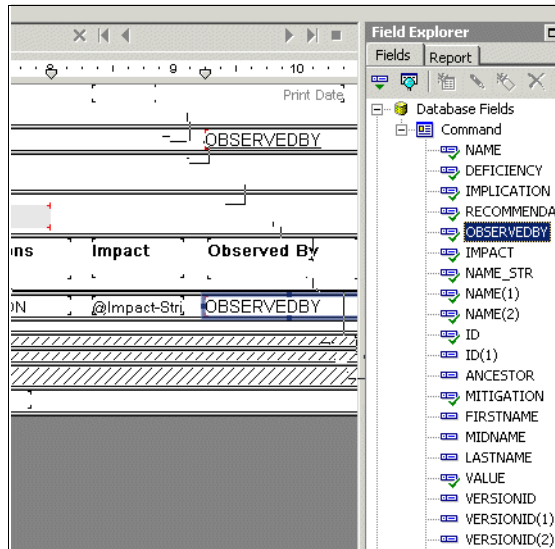


Figure B-4 Adding the OBSERVEDBY field to the report

22. Click **File** → **Summary Info** and change the Report Title from **NoAclObservations** to **NoAclAuditorObservations**. The reporting engine will use the Report Title to locate the correct version of our report based on the parameters passed by Workplace for Business Controls and Reporting when the user selects to see the Auditor Observations report.
23. Select **File** → **Report Options** and make sure that the **Save Data with Report** option is cleared. When the report is saved, we do not want to save the parameter values; these will be based on the user context and are passed to the reporting engine by Workplace for Business Controls and Reporting. In order to ensure that they will be cleared when saving, also generate a Preview Sample as described in the next step.
24. Select **File** → **Print** → **Preview Sample**.
25. Select **File** → **Save As** to save the modified report. Name the report **NoAclAuditorObservations.rpt**.
26. Close Crystal Reports 10.

## Publishing the new report to Crystal Enterprise 10

Next, we publish our custom report to the Crystal Enterprise server. Perform the following steps:

1. Launch the **Crystal Enterprise 10** → **Crystal Publishing Wizard**.
2. Click **Next** on the Welcome window.

3. On the next window, provide the **Crystal Administrator** user name and password and click **Next**.
4. Click **Add Files**.
5. If necessary, browse to the directory where the templates reside, for example, c:\Report Templates and select the **NoAclAuditorObservations.rpt** file we created.
6. Click **Open**.
7. Click **Next**.
8. Select the location to which the report will be published and click **Next**. In a standard installation, this will be WBCR, as shown in Figure B-5.

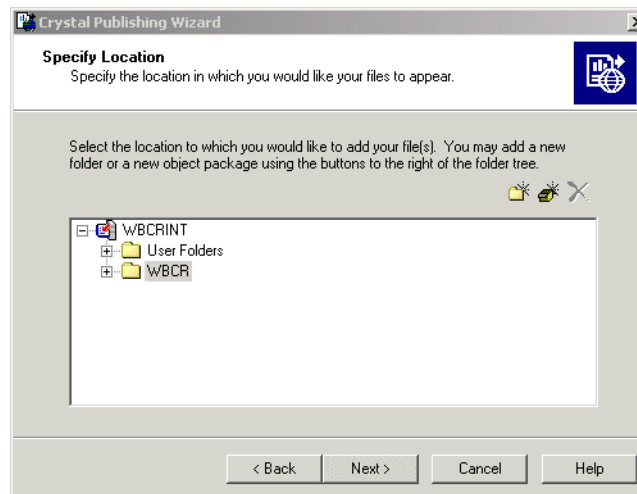


Figure B-5 Selecting the location for publishing the new report

9. On the following windows, keep clicking **Next** to accept all the default settings, and complete the publishing process by clicking **Finish** on the last window.

## Making the new report available through the Workplace for Business Controls and Reporting interface

The next stage is to set up Workplace for Business Controls and Reporting so that the new report can be selected by end users through the Reports tab. In this section, we add a portlet parameter and two custom labels with the Label Manager.

## Adding a portlet parameter

You will need WebSphere Portal administrator access in order to add a parameter to the portlet. If you do not have this access as the Workplace for Business Controls and Reporting administrator, coordinate these steps with the WebSphere Portal administrator. Perform the following steps:

1. Log in to the portal as the WebSphere Portal administrator.
2. Navigate to **Administration** → **Portlets** → **Manage Portlets**.
3. Search for Workplace for Business Controls and Reporting portlets by entering WBCR in the Title contains field.
4. Select the **WBCR - Reports Detail** portlet and click **Modify Parameters**.
5. Define a new parameter, `wbcr.reports.custom.Report1`, with the value `AuditorObservations`, as shown in Figure B-6, and click **Add**.

<input type="checkbox"/> beanType	Access
<input type="checkbox"/> DefaultViewType	Navigator
<input type="checkbox"/> portletBeanClass	com.ibm.lwp.bcr.portlet.CatD
<input type="checkbox"/> helpJSP	/WEB-INF/help/p_bcr_m_repc
<input type="checkbox"/> vaultSlotDb2	Db2Login
<input type="checkbox"/> crystalAPSHost	wbcrnt.raleigh.ibm.com
<input type="checkbox"/> c2a-action-descriptor	/wsdl/CatDetail.wsdl
<input type="checkbox"/> wbcr.reports.custom.Report1	AuditorObservations

+ Add

Figure B-6 Adding the portlet parameter

6. Scroll down and click **Save** to save the changes.

## Adding the custom labels with Label Manager

Next, the Workplace for Business Controls and Reporting administrator can add the required custom labels. Perform the following steps:

1. Navigate to **WBCR Administration** → **User Interface** → **Customize Labels**.
2. In the Add label section, select the key for **wbcr.reports.custom**. In the suffix field, type `AuditorObservations.title`.
3. In the Value field, type a title that will become the link in the list of reports, for example, Auditor Observations.
4. Click **Add label**.
5. In the **Add label** section, select the key for **wbcr.reports.custom**. In the suffix field, type `AuditorObservations.desc`.



6. In the Value field, type a description that will help the user identify what this report will generate, for example, Provides a list of all auditor observations and recommendations for the selected Business Unit(s).
7. Click **Add label**.
8. Log out of WebSphere Portal.

### **Verifying that the new report works**

Before you can verify whether the Auditor Observations report works, make sure that you have a couple of auditor observations. Perform the following steps:

1. Log in to the portal as a user with the auditors role.
2. Go to the Evaluation tab.
3. Drill down into a process until you reach a control.
4. Click **Auditor Observation**, fill in the fields on the form, and click **Save**.
5. Repeat the previous steps so that you have a couple of observations.
6. Next, navigate to the Reports tab. Select the top-level business unit and click **Reports** to see the list of standard reports and the new category for Custom Reports, which now has the entry for Auditor Observations, as shown in Figure B-7 on page 212.

Page 1 of 1	
Report	Description
<b>Scope</b>	
<a href="#">Corporate Structure</a>	Lists the scope value for each business unit.
<a href="#">Documentation Status</a>	Lists processes and their documentation completion status.
<a href="#">Linking Matrix</a>	Lists process and controls relative income statement items.
<b>Document &amp; Assess</b>	
<a href="#">Control Matrix</a>	Lists the control information under each process, sub-process, and risk within the selected business unit(s).
<a href="#">Control Owner</a>	Lists the control information for each control owner within the selected business unit(s).
<a href="#">Controls with Follow-Up</a>	Lists controls that have follow up dates within the selected business unit(s).
<a href="#">Ineffective Controls</a>	Lists ineffective controls within a selected business unit(s).
<a href="#">Observations and Recommendations</a>	Lists of observations and recommendations for each control within the selected business unit(s).
<a href="#">Evaluation of Controls</a>	Lists the evaluation information for each control within the selected business unit(s).
<b>Coso</b>	
<a href="#">Coso Heat Map</a>	Provides a graphical depiction of the relationship between the five Coso control components, their effectiveness rating, and impact rating for each selected business unit(s).
<a href="#">Coso Control Components</a>	Shows the percentage value or absolute values of controls that are assigned to the control components for each process.
<b>Custom Reports</b>	
<a href="#">Auditor Observations</a>	Provides a list of all auditor observations and recommendations for the selected Business Unit

Figure B-7 New report is displayed under Custom Reports

7. Select the **Auditor Observations** report. Because we are logged in as an auditor with global access rights, Workplace for Business Controls and Reporting knows that it needs to pass the reporting engine the command to use the NoAcl version of our report. The reporting engine uses the business unit ID, version ID and user locale parameters to use in the SQL statement, generates the report, and passes the formatted HTML back to the Workplace for Business Controls and Reporting portlet for display, as shown in Figure B-8 on page 213.

VBCR - Reports Detail

Report: Auditor Observations

PDF Excel

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**ACME > NA\_Operations\* > Finance\***

Process	Accounts Receivable*:Account for Sales Transactions				
Control	Deficiency	Implications	Mitigating Control	Recommendations	Impa
Billing document types are configured to automatically generate and post the associated accounting document.	Design of this control seems ineffective. How do you really ensure accounting documents are correctly posted?	May lead to incorrect postings going unnoticed		Review the automated procedure	Deficiv

**ACME > NA\_Operations\* > Inventory Control\***

Process	Inventory costs:Procurement				
Control	Deficiency	Implications	Mitigating Control	Recommendations	Impa
Gross profit margin for each product is analyzed for consistency from period to period, regularly significant fluctuations are investigated.	Noticed significant fluctuations across Q1 and Q2 samples. Seems insufficient rationale was	Significant risk exposure in US West		Investigate	Signif Defici

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Figure B-8 Auditor Observations report

**Note:** The report will show the OBSERVEDBY value as, for example, uid=jim\_doe, cn=users, dc=acme, dc=com. An additional formula will have to be applied to this field in Crystal Reports 10 to display the auditor name in a more user-friendly format.

## Next steps: Adding the three other versions of the report

To enable users to also select a business unit they can view for traversability reasons but only show these users the Auditor Observations for controls to which they have view or edit access, we also need to implement the Acl version of the report (AuditorObservations.rpt).

To enable users to view Auditor Observations in previous versions of the data set, we need to implement the report templates (HistAuditorObservations.rpt and NoAclHistAuditorObservations.rpt) that access the History tables.

To do this, you follow the same steps as outlined in “Steps to customize a report based on an existing report” on page 203 to create the three additional reports. You base these on the existing report templates shown in Table B-2.

*Table B-2 Additional files to be created*

Original template	Save as
Observations.rpt	AuditorObservations.rpt
HistObservations.rpt	HistAuditorObservations.rpt
NoAclHistObservations.rpt	NoAclHistAuditorObservations.rpt

You will notice that the SQL is different for each of these templates. However, the similar changes need to be applied in each one of these. Perform the following steps:

1. Add "V\_CTRLBSV"."OBSERVEDBY" for the AuditorObservations template and "V\_CTRLBSV\_HISTORY"."OBSERVEDBY" for the Hist versions of the templates.
2. Change RIGHT OUTER JOIN to INNER JOIN.
3. Change "Type"=0 to "Type"=1.
4. Remove the line that references arg0.
5. When you save the modified SQL, provide the same parameters you used before for WBCR\_ORG\_ID and BCR\_LOCALE. For Acl versions, provide 45,000,000,000,001 as the value for BCR\_USER\_ID. For the Hist versions, provide 46,000,000,010,001 as the value for BCR\_VERSION\_ID.
6. Apply the same changes to the report design (Header, OBESERVED BY field).
7. Change the Report Title by selecting **File** → **Report Summary** and provide the corresponding value for each of the three templates (the save as file name without the .rpt extension).
8. Save each report with appropriate file name.
9. Publish the three reports by selecting **Crystal Enterprise** → **Report Publishing Wizard**.

**Note:** If you need to remove a report from the Crystal Enterprise 10 server, go to **Crystal Enterprise** → **Crystal Enterprise Admin Launchpad**. From there, you can launch the Crystal Management Console. Go to **Objects**, select the report to be deleted, and click **Delete**. This removes the published report, not the template .rpt file itself.

You might also want to use the Crystal Management Console to check whether the parameter values are set to <Empty> by clicking the report link from the Objects section. Next, go to the Process tab and select **Parameters**. If actual values are shown, d now set the initial values to <Empty> and update the report.

## Certification report sample

A second custom report has been added as an additional sample material for this paper. When a user selects this report, it will initially show the certification status for the selected business unit and its dependent business units. If a business unit was certified, the report will show the date of certification, comments, and who certified the business unit. If the business unit was certified multiple times, the report will list all certification entries for that unit. Figure B-9 on page 216 shows the business unit certification status.

BCR - Reports Detail

Report: Certification Status

PDF Excel

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Thursday, July

**Org Unit Certification Status**

Business Unit	Date	Comment	User
<a href="#">NA_Operations*</a>			
<a href="#">NA_Operations* &gt; Finance*</a>			
	7/14/05	Additional training to address XYZ to be completed by 12/01	uid=Celia_Ortez,cn=users,d
<a href="#">NA_Operations* &gt; Finance* &gt; Treasury Operations</a>			
<a href="#">NA_Operations* &gt; Manufacturing*</a>			
<a href="#">NA_Operations* &gt; Inventory Control*</a>			

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Figure B-9 Business Unit Certification Status

The business unit names are hyperlinks, so the user can click a business unit name and generate a second report showing the certification status for each process that was defined for that business unit, as shown in Figure B-10 on page 217.

Back -> Reports Detail

Report: [Certification Status](#) > Process Certification

PDF Excel

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Thursday, July

### Process Certification Status

Finance\*

Processes	Date	Comment	User
<a href="#">Accounts Receivable*</a>	7/14/05	no additional comments	uid=Celia_Ortez,cn
	7/14/05	Need A&I to address B	uid=Bill_Williams,c
<a href="#">Compute Current Federal Income Tax Expense</a>			
<a href="#">Credit Management*</a>	6/28/05	test for report	uid=wpsadmin,cn=
<a href="#">Imported Catalog Process</a>			

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Figure B-10 Following a Business Unit hyperlink shows Process Certification Status

In this second report, the process names are hyperlinks, so the user can click a process name and generate a third report showing the certification status for each control that was defined for that process. The user can navigate back to the business unit certification report through the *breadcrumb* trail at the top of the report. See Figure B-11 on page 218.

**Note:** The certification reports are provided as a sample and include only the “NoAcl” versions of the templates. The Acl and History versions for these reports have not been included.

Report: [Certification Status](#) > Control Certification

PDF Excel

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**Control Certification Status**  
**Finance\* : Accounts Receivable\***

Thursday, July

Control	Date	Comment	User
Access to transactions to modify terms, write-off receivables or transfer accounts to collection agencies is limited to appropriately authorized individuals.			
Billing document types are configured to automatically generate and post the associated accounting document.			
	6/28/05	tested for report	uid=wpsadmin,cn=
Collection efforts should include overdue notices, telephone tracking, tickler logs.			
Management compares aged accounts receivable balances to bad debt reserves			
Management uses standard credit memo reports to monitor credit memo accuracy.			

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Figure B-11 Following a process hyperlink shows Control Certification Status

To publish the three reports, copy the following files to the Workplace for Business Controls and Reporting templates directory on the Crystal Reports server:

- ▶ NoAclCertificationOrg.rpt
- ▶ NoAclCertificationProc.rpt
- ▶ NoAclCertificationCont.rpt

To publish the reports, follow the steps described in “Publishing the new report to Crystal Enterprise 10” on page 208.

Next, the NoAclCertificationOrg.rpt file needs to be made available through the Workplace for Business Controls and Reporting user interface. Note that the other two reports do not need to be available from the reports lists because they will be only be available through the hyperlink in a generated report.

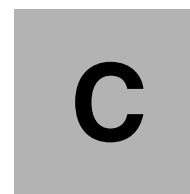


Follow the steps described in “Making the new report available through the Workplace for Business Controls and Reporting interface” on page 209 to add the report with the following changes:

- ▶ Portlet parameter to be added: `wbcr.reports.custom.Report2`
- ▶ Parameter value: `CertificationOrg`
- ▶ Add the following custom labels and values:
  - `wbcr.reports.custom.CertificationOrg.title = Certification Status`
  - `wbcr.reports.custom.CertificationOrg.desc = Lists certification status for selected Business Units(s), processes and controls`
  - `wbcr.reports.custom.CertificationProc.title = Process Certification Status`
  - `wbcr.reports.custom.CertificationCont.title = Control Certification Status`

**Note:** The titles for the `CertificationProc` and `CertificationCont` labels are added so that they will appear as part of the breadcrumb trail of the reports. There is no need to add the description (`desc`) label for these reports.





## **Additional material**

This Redpaper refers to additional material that can be downloaded from the Internet as described in this appendix.

## Locating the Web material

The Web material associated with this Redpaper is available in softcopy on the Internet from the IBM Redbooks Web server. Point your Web browser to:

<ftp://www.redbooks.ibm.com/redbooks/REDP4021>

Alternatively, you can go to the IBM Redbooks Web site at:

[ibm.com/redbooks](http://ibm.com/redbooks)

Select the **Additional materials** and open the directory that corresponds with the redbook form number, REDP4021.

## Using the Web material

The additional Web material that accompanies this Redpaper includes the following files:

- ▶ Auditor Observations reports:
  - NoAcHistAuditorObservations.rpt
  - AuditorObservations.rpt
  - HistAuditorObservations.rpt
  - NoAcIAuditorObservations.rpt
- ▶ Certification reports:
  - NoAcICertificationProc.rpt
  - NoAcICertificationCont.rpt
  - NoAcICertificationOrg.rpt
- ▶ Catalog Import spreadsheet template and sample data:
  - CatalogSample.xls

# Related publications

The publications listed in this section are considered particularly suitable for a more detailed discussion of the topics covered in this Redpaper.

## IBM Redbooks

For information about ordering these publications, see “How to get IBM Redbooks” on page 224. Note that some of the documents referenced here may be available in softcopy only.

- ▶ *WebSphere Product Family Overview and Architecture*, SG24-6963
- ▶ *WebSphere Portal V5.0 Production Deployment and Operations Guide*, SG24-6391
- ▶ *IBM WebSphere Application Server V5.1 System Management and Configuration, WebSphere Handbook Series*, SG24-6195
- ▶ *IBM WebSphere Portal for Multiplatforms V5 Handbook*, SG24-6098
- ▶ *WebSphere Portal Server and DB2 Information Integrator: A Synergistic Solution*, SG24-6433
- ▶ *DB2 UDB V8 and WebSphere V5 Performance Tuning and Operations Guide*, SG24-7068
- ▶ *Content Manager Implementation and Migration Cookbook*, SG24-7051
- ▶ *Performance Tuning for Content Manager*, SG24-6949
- ▶ *Content Manager Backup/Recovery and High Availability: Strategies, Options, and Procedures*, SG24-7063

## Online resources

These Web sites and URLs are also relevant as further information sources:

- ▶ IBM Workplace for Business Controls and Reporting Information Center:  
<http://www.lotus.com/1dd/notesua.nsf/ddaf2e7f76d2cfbf8525674b00508d2b/36b4962e1d7518fe85256ff1006dbac9>
- ▶ IBM WebSphere Portal Information Center  
<http://publib.boulder.ibm.com/pvc/wp/500/ent/en/InfoCenter/index.html>

- ▶ Information Systems Audit and Control Association (ISACA)  
<http://www.isaca.org>
- ▶ Committee of Sponsoring Organizations (COSO) of the Treadway Commission  
<http://www.coso.org>
- ▶ “Leverage on demand solutions to help you create strategic Sarbanes-Oxley compliance plans”  
[ftp://ftp.software.ibm.com/software/lotus/pub/lotusweb/sox/10703070\\_Lotus\\_final.pdf](ftp://ftp.software.ibm.com/software/lotus/pub/lotusweb/sox/10703070_Lotus_final.pdf)
- ▶ *IT Controls for Sarbanes Oxley*, Information Systems Audit and Control Association (ISACA)  
<http://www.isaca.org>

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# IBM Workplace for Business Controls and Reporting: Administration and Operations Best Practices

**Document, evaluate, and report on controls management for your enterprise**

**Administration and operations**

**Best practices**

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Whether you are a line-of-business executive, financial controls manager, auditor, or application administrator, this IBM Redpaper will introduce you to Workplace for Business Controls and Reporting and its administrative and operational features and best practices. This paper is intended for use after you initially install the product.

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